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ABSTRACT

The 12 articles and stories in this issue focus on the integration of work and learning and on adult learning. "An Introduction to 'Work and Learning'" (Lee Herman) outlines the scope of the volume. "Child's Work" (Nancy Wallace) shows children's independent play to be important intellectual work. "Learning to Write" (Laura Robert) is a Kafkaesque story about a graduate student whose education is distracted by his efforts to learn what others have decided he should. "Welding the Link: Classroom Writing and Workplace Writing" (Marion Fey) describes the reciprocal benefits to learning and work when technical writing students derive topics from jobs. "Juggling, Balancing, and Integrating: School, Work, and Family for Returning Adult Learners" (Elinor Greenberg, Lois Zachary) describes adults learning to manage complex lives as students, workers, and family members. "Old and New Ground in Adult Learning" (Morris Keeton) discusses what adults know about learning and work. "Information Technology and Worklife: Shosana Zuboff's 'In the Age of the Smart Machine'" (Robert Tolsma) is a book review. "Production Knowledge and Social Knowledge" (Elana Michelson, Clark Everling) focuses on the acquisition of these two types of knowledge by workers. "Critical Thinking: Ideals and Tensions. A Conversation with Stephen Brookfield" (Alan Mandell) shows that adult students do need help to learn. "The Faith Healer" (Nancy Anderson) is a story of an old woman who is learning how to die. "The Vanished Porch" (Daniel Smith) is a memoir that contemplates the tranquility and poetry learned from a grandfather that can be put into a busy life. (YLB)

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Empire State College *State University of New York*

Volume Five

GOLDEN HILL

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The name of the Empire State College journal, *Golden Hill*, comes from what some call the very first battle of the American revolution (and others have called a drunken street brawl) — on Golden Hill in New York City. The ambiguities surrounding this conflict set the tone for our publication. Neither a formal journal nor a throw-away periodical, *Golden Hill* breaks new ground in at times unorthodox ways.

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Ray Lynch

When *Golden Hill* was proposed, no one on the first editorial board understood production. Fortunately, Ray Lynch took a hand. He led us through the College print shop, explaining typefaces, paper, and scheduling. He gave us books to read. As we stood there, not yet able to form the right questions, he made it clear that he would be there to help us; he wanted us to succeed. He would make up for what we didn't know.

This issue is dedicated to the memory of Ray Lynch, Director of Central Services at Empire State College from 1980-87.

Gary Goss
Founding Editor

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***Lee Herman,** a mentor at Empire State College, works with a wide variety of students at the College Unit which he directs in Auburn, New York. He is particularly interested in the integration of contemplative and practical studies and in issues which cross disciplines. His doctorate is from the Committee on Social Thought at the University of Chicago.*

Work and Learning

How far might our understandings of work and learning be expanded to include one another? Are workplaces also learning places? How do our visions of learning change when students are workers? What is the contemporary importance of the ancient distinction between the practical and the contemplative life?

These questions, though abstract, are important for evaluating contemporary education in America. Public policy debates about education are loud with fear and lamentation: that class divisions are dangerously widening in part because teachers don't teach and students won't study, that the nation has become less competitive and its citizens less civil and literate. Public officials, parents, and educators are supposed to be doing something about this emergency. Their varied recommendations share, aside from their grave and even scolding tone, a concern for "work." American education, it is widely thought, will have been improved if it "produces" better workers. And social barbarism and stratification will ease once there is more productive work to go around, work that can only be done by a work force endowed with a renewed and improved literacy.

It's understandable that emergency measures ignore many basic questions. In exactly what contests is it important that the nation be competitive? Should we be more democratic than other nations, or richer? Are these purposes entirely reciprocal?

To what extent should schools and students be driven by the needs and virtues of the workplace? For that matter, what sort of literacy will really be needed from the workers of the future? And what learning, if any, inclines people to be more productive and more civil?

Asking basic questions in urgent times is annoying because considering them carefully requires time and tranquility. But those qualities traditionally belong to the academic world (the linguistic root of "school" means "leisure"), not to the industrial scale and pace often recommended for implementing a national education agenda. Although the schools and universities are sometimes accused of being merely degree mills, too much like businesses, they are also urged to get down to the business of producing more useful citizens and workers. The anciently institutionalized veil separating contemplation and action appears to have been thoroughly tattered. Where then are thoughtful, leisurely inquiries occurring about work and learning?

One place is in programs of independent and continuing education, among the largely adult students enrolled in them. Though hardly immune from the fever of national educational reform, such programs have often thrived in the comparative peace and solitude of institutional quarantine, as programs of alternative, nontraditional, or continuing education, not quite fit enough to participate fully in the national education establishment. Their isolation, however, has also proven to be a kind of magic mountain. They have their own scholarship and theory and practices. Moreover, since adult students often return to school for practical purposes, they and their teachers have learned how to integrate those with contemplative purposes of education. They know a lot about learning and work, as Morris Keeton discusses in "Old and New Ground in Adult Learning," his article for this issue of *Golden Hill*.

One of his claims likely to inspire the thoughtful educational reformer is that the more independent the learner, the

more productive the learning. People learn well what they're curious about and able to teach themselves. And, Keeton contends, a nation of independent learners will also be a nation of productive, literate workers. Marion Fey provides some corroborative evidence in her article, "Welding the Link: Classroom Writing and Workplace Writing." She describes the reciprocal benefits to learning and work when technical-writing students are encouraged to derive their topics from their jobs and community projects.

The honorable lineage of Keeton and Fey's vision can of course be traced back to the democratic ideal that a people free in mind and action will also contribute to the common good and the common wealth. That's a basic notion worth recalling when the cry "back to basics" is so frequently uttered with a meaning stripped of ideals.

The contributors to *Golden Hill* mostly know about adults learning. It's thus reasonable to question what their ideas might contribute to younger students, who, by and large, are the target of the current national mobilization. Part of the answer lies in demographics: the traditional student population is getting older. This is especially so at the college level. But if the need for job retraining and literacy studies among the work force is as great as Keeton and others claim, then many more teachers will be needed who can help adults learn at precollege levels.

Another part of the answer is that adults learning need not be much different from anybody learning. Adult students, being adult, are often expected to be academically independent. But these students often need help, as Stephen Brookfield remarks in his conversation with Alan Mandell, "Critical Thinking: Ideals and Tensions." The occupations of children, being childish, are thought to require adult management. But, as Nancy Wallace shows in "Child's Work," their independent play is important intellectual work. Perhaps students of all ages would learn more if educational taxonomists did not work as hard as they frequently do to distinguish adult learners from other species.

That's a credible conclusion to be drawn from the sum of the articles and stories in this *Golden Hill*. Their subjects span the human lifetime — from the children Nancy Wallace describes, who are busy making worlds, through the adults of Elinor Greenberg and Lois Zachary's "Juggling, Balancing, and Integrating," who are learning to manage complex lives as students, workers, and family members. In his memoir, "The Vanished Porch," Daniel Smith, now a mature professional, contemplates the tranquility and poetry he had learned from his grandfather to put into a busy life. And the old woman of Nancy Anderson's "The Faith Healer" recalls the supernatural spells of witches and medicine men; that's her way of learning how to die.

The learning of these students is more fundamentally similar than the disparate topics of their curiosity or their age differences might suggest. For example, their learning thrives most when it is genuinely theirs, when it is a "work" they've chosen to make. That might be how children learn to toughen their feet for climbing trees and crossing stubbled fields. It might be how workers learn to read the "informated" workplace as text in order to do both productive and intellectually stimulating jobs, as Robert Tolsma discusses in his review of Shoshana Zuboff's *In the Age of the Smart Machine*. Or, as Elana Michelson and Clark Everling propose in "Production Knowledge and Social Knowledge," it might be the complex, politically potent understandings workers can acquire of the social contexts of their globalized and automated work. In all these instances it is the autonomy of the learner's attention and inquiry that makes learning profound and productive.

Compromising this autonomy injures students of any age. The education of the graduate student in Laura Robert's Kafkaesque story, "Learning to Write," is thoroughly distracted by his efforts to learn what strange authorities have decided is proper for him to know. Nancy Wallace shows these distractions to genuine curiosity beginning in childhood. Thereafter, "behaving correctly" can be so persistently confused with learning that, as Gary Goss reflects in "Workplace," people quit school as soon as they can and, should they

someday return to a college that honors the difference, they are therapeutically astonished.

Learning is not easy to sustain, no matter what the age or sophistication of the student. It is work. It is an overcoming of resistances. There are inhibitions of self and ties to family, and the rules of schools. There are tensions, examined by Tolsma and by Michelson and Everling, between control and productivity, between exploitation and dignity in workplace hierarchies. And of course there is the sheer labor, described by Marion Fey, of learning to be clear. Achieving learning in context, amidst the demands of family, school, and job is in itself a skill, which Greenberg and Zachary call "integration." It is an accomplishment of considerable intellectual and imaginative virtuosity which, they argue, deserves greater academic recognition. These integrative learners are like artists who have mastered the resistances of their media. Is it too much to claim that such learning is a "work" of art? And shouldn't children as well as adults be encouraged to achieve it?

But let's assume students do acquire the leisure traditionally supposed necessary for learning, the tranquility Daniel Smith describes so fondly. And let's assume this "school" is not one of the odd refuges adult students often make for their studies — kitchen tables in the middle of the night and parked cars during work breaks. Let's assume they know the rich quiet of university halls and they sublimely separate the life of the mind from the work of the ordinary world. Then, another kind of work, another kind of creative tension rises (though it's present for all students of every condition). Then one confronts the seemingly perpetual incompleteness of knowing, the resistance of truth itself.

It is hard to remain aware of one's ignorance. It's work to be what Brookfield and Alan Mandell call "critical": open to uncustomary perspectives, keen to unexamined assumptions, tolerant of differences, and respectful of phenomena which don't fit the usual explanations of the world. One wonders, for example, how even the most seasoned adult educator might respond should Lako

Pratt (the faith healer of Nancy Anderson's family memoir) improbably seek academic credit for the learning he must have achieved to exercise so precisely and reliably his astounding medicinal powers.

Does the separateness through which the academic community achieves its intellectual leisure make it uncritical of the very knowledge it presumes to have and the habits of inquiry over which it claims special stewardship? This and similar troubling questions suffuse Brookfield and Mandell's discussion of how difficult it is even for scholars to sustain objectivity and stay alive to the limits of their own authority, even when they are trying to understand and teach "critical thinking." Adult as well as other nontraditional students and the academic establishment are often wary of one another. Their distrust might be explained by the combination of intellectual inexperience and socially permitted independence in adult students — that makes them "difficult to handle." But it might also arise from the disregard institutionally protected academics have for ways of knowing of which they are ignorant — that makes them insufferable.

But workplaces can suffer the same disability, the closed-mindedness of universities too overgrown with ivy. Workers who train themselves only to the skills of production and its organization are like students who only absorb what their teachers assign. They re-produce, but don't create. They are replaceable commodities, like the students crowded into the required lectures of indifferent professors. But the workplace, argue Michelson and Everling, is also rich with signifiers of the larger world, the social world. Workers who learn this "social knowledge," as well as the production skills currently in demand, have the best chance to empower and liberate themselves in a work-world that discourages large ideas and critical questions for the sake of current production, even though it is inevitably affected by them.

So, in the leisure of learning, its privileged separation from the ordinary work of the world, there is a paradox. For in the

separation of the life of the mind from the common work of living, a separation traditionally supposed necessary to both the most highly regarded intellectual achievements and the most competitive workplaces, there is also the most profound inducement to ignorance. This is the alienation of "Mind" and "Life" Faust struggles to overcome. Perhaps it's the reason that Socrates often located his inquiries in the *agora*, the busy marketplace of Athens, where citizens conducted their works and days. It is also an issue to which educational policymakers are too inattentive as they anxiously decide "what every American ought to know." And that's why they might usefully turn to adult learners, both students and teachers. For these are the "experts" at juggling and integrating work and learning. The editorial board of *Golden Hill* is pleased to present some of their contemplative labors.

I thank the other members of the Golden *Hill editorial board for their hard work and good judgement: LeGrace Benson, Xenia Coulter, Gary Goss, Wendy Goulston, Dan Granger, Thelma Jurgrau, and Tim Lehmann. All of us especially thank Nancy Wallace, our "editorial intern," who contributed fully and thoughtfully to every discussion and who performed great feats of precise copy-editing and proofreading under deadline. We are also indebted to Denise Moorehead for her many kinds of publication help; to Robert Perilli, for conducting us safely into mysteries of electronic communication; and to Linda Butler, for her word processing labor and skill. Finally, we thank the Empire State College Foundation and administration for their support, and the College print shop for their patient and careful work.*

Nancy Wallace *graduated from the Ithaca unit of Empire State College in the fall of 1990. She has been educating her two children, Vita and Ishmael, at home for the past twelve years. Wallace has written and lectured nationally about homeschooling and homeschooling issues, political, bureaucratic, and educational, for just as long. She is the author of two books about how children think, learn and create their own structures for learning:* Better Than School *(1983) and* Child's Work *(1990). She has also written numerous magazine articles about homeschooling, and works as an editorial consultant for the Boston-based newsletter* Growing Without Schooling. *She has recently turned to writing fiction as another way to explore the minds of children and the experience of childhood.*

Nancy Wallace

Child's Work

When I was a teenager I often skipped school to spend the afternoon people-watching at the San Francisco Zoo. Those were the days of outrage. We thrived on outrage like nothing else. We were outraged by our parents' protectiveness and concern; we were outraged by the cops who harassed us, looking for stashes of marijuana; we were outraged by the Vietnam war and the government violence against Black Power activists like Huey Newton and Bobby Seale; we were outraged by businessmen in suits and by ticky-tacky houses and by the drivers of big American cars.

My own particular outrage was directed against the parents who trotted their young children through the zoo. I was outraged by their lack of sensitivity to their children's magnified sense of time, unaware that each moment to their children represented a year of discoveries. These parents looked only at the caged animals, laughed only at what was conventionally funny, and expected their children to laugh too.

Their children, meanwhile, living so much closer to the ground because of their size, wriggled their hands free from their parents' grasp whenever they could and lingered — not over the caged animals, but over the bits of candy wrapper that their parents blindly stepped on, the chipped and peeling paint on the low green railings in front of the animal cages, and the trampled pieces of hotdog bun and popcorn that littered the zoo pathways. They were fascinated less by the caged exotic birds than by the sparrows and pigeons pecking at the zoo litter.

The children I watched ran when they weren't supposed to run, chased after birds when they were supposed to be staring into cages or eating picnic lunches, lingered here and skipped ahead there. They moved

along within no discernible time frame, guided only by their curiosity and hunger for discovery.

In the revised edition of *How Children Learn*, John Holt writes, "If we give children access to enough of the world, including our own lives and work in that world, they will see clearly enough what things are truly important to us and to others, and they will make for themselves a better path into that world than we could ever make for them."

Perhaps John Holt's opening phrase would be better changed to make it read, "If we *allow* children access," but in any case, "access" is the important word, the important concept. Aaron Falbel, in his thesis *Friskolen '70*, contrasts the idea of access with exposure. He says that "access implies making someone an offer — an offer that they can refuse. Exposure, on the other hand, means subjecting someone to an experience.... Exposure is something done to you; access refers to proximity, availability."

The parents I watched at the zoo brought their children, not because the zoo was important to their own lives or work, but because they thought it was important, as good parents, to expose their children to wild, albeit caged, animals. They would never have believed it if someone had told them that, despite their yanks and grabs and growing impatience with their children's pace, what was most valuable about their outing was that they were allowing their children access to litter and the infinite patterns made by peeling paint on metal railings. Meanwhile, what I noticed with a kind of awe and envy was that, even at the tender ages of two and three, the children seldom complained, but went on with what they were doing as if they knew no other way.

Among educators it is fashionable and, I think, correct to say that children learn more in their first five years than they do in the rest of their lives put together. Yet generally, we call what children do "work" only later, after they start school. Schoolwork — work that adults assign to children — is the only serious work that, as a society, we acknowledge. But at the zoo, I was watching determined young scientists and explorers, patiently battling the adults they most loved and admired, in order to better understand the environment they were growing up in. And what was this activity, really? Child's play?

Part of the fascination for me then — the outrage — was knowing that eventually these children would tire of their battle. They would grow taller and learn to stare into the animal cages the way they were supposed to. The thought that they would learn to laugh at what was expected, at the expense of losing sight of the peeling paint and the trampled popcorn, horrified me. Clearly, I realized the value, the importance, of child's work and the tragedy of its loss; yet by never equating the exuberance of these children, their eye for detail, and their continually expanding and contracting sense of time with actual work, I must have already experienced my own loss.

Although I now see that I was beginning on a life's work — that of observing and writing about young children learning — I was sure then that my afternoons at the zoo were nothing more than child's play, an escape from the schoolwork I knew I ought to be doing so that instead I could spend my time doing what I loved. It was only years later, as I watched my own two children using everything they saw, touched, or heard as tools to feed their imaginations and watched them wake up each morning determined to explore yet another inch of the territory available to them, that I looked back to the children at the zoo and began to piece together their experiences with those of my own children, and finally of my own childhood.

California in the summertime is dry. The ranchland grass turns brown and the dirt roads turn to dust. As children, we went barefoot in the summer. We pushed our feet through the dust on the road the same way at night I pushed my fingers along the silk lining of my blanket. We could never get enough of the feel of the thick dust that cushioned the pads of our feet or clung to the fine hairs on our legs. When it was really dry, we could make the dust clouds rise above our knees. We were experts.

But my friends and I went barefoot by necessity. We couldn't climb the oak trees dotting the hills across our road without using our bare toes to grip the coarsely grooved bark. A big toe lodged in a rot hole might save us. We worked on our callouses with the same seriousness that our mothers worked on their tans. When time ran slow, we argued about whose feet were toughest. Though we hollered each time we stepped on a broken stalk, pride forced us to endure the prickles of the rough, brown oat grass on our always-too-tender arches. We didn't even notice our hollers. They

were simply sounds we made — inevitable, like the gurglings in our stomachs.

California brown frames most of my childhood memories, but reason tells me that there must have been vast expanses of green in that landscape, too. The green comes, almost overnight, with the winter rains. All winter long the rolling hills across the road, broken only by patches of live oaks and barbed-wire fences, must have been green, but I can't picture them that way. I remember puddles, even ice, but I remember them mostly through feel, like the dust — the feel of splashing through muddy puddles in my red boots, the feel of cracking through iced-over puddles in my school shoes as I walked to the bus stop on cold winter mornings. Either because I was always too short while I lived in California to have been able to see broad views, or because I spent the winter months inside classrooms, I don't remember the green hills. Or rather, I don't remember the green as so vast — so abundant and lush — that I felt dread at the thought of losing it to the summer heat and drought.

Still, my earliest California memory — earlier than my memories of the dust on the roads or the cracking of the ice — is of green, a small patch of green I discovered one late spring and kept to myself.

California, at least where I grew up, is a land of drought, red dirt, and yearly erosion caused by quick torrents of rain that fall in January. Steep, brush-covered gullies, with mostly dry creek beds winding along the bottoms, cut through the land where we lived. But the rolling hills I roamed as a child also had a different kind of gully, miniature paths of erosion where trickles of water ran over beds of granite pebbles and fed the roots of the wild grasses and flowers after the rains had stopped for the season. Here the green stayed, even when the rest of the world turned brown. Why did the water continue to trickle? I don't know. Maybe the granite had something to do with it; perhaps in these places the red earth couldn't get at the water to suck it dry. The banks of these miniature gullies were ragged with the same granite as their bottoms. Black-stemmed maidenhair ferns and yellow-tipped, violet-petalled shooting stars grew in the cracks between their granite outcroppings.

My secret green patch was in one of these gullies. Its steep rocky drop down to the trickle of water — a bank of granite grown over

with soft, deep-green moss and gray-green and yellow lichen — was my first workplace. All day long I filled my skirt pocket with quartz pebbles from the road, redwood cones from the school yard, and furry redwood bark. Then, after school, I ran off to the green patch, barefoot over the stiff, dry grass, listening hard for the first trickling sound of water.

The particular place that drew me had a series of fern-shaded granite shelves layered into the bank. Day after day it held me. There, each afternoon, I emptied my pockets of the raw materials I had collected and set to work building a perfect world for my imaginary Borrowers, the miniature Victorian race whose powerful personalities had rubbed off the pages of my favorite book and had settled themselves indelibly in my imagination. Perhaps under the shade of a clump of ferns, perhaps on a sunny, flat shelf of rock, I balanced smoothed oak twigs like Lincoln Logs to make wee log cabins. I thatched each roof with straw or moss and leaned oat straw brooms by each front door. Borrowers swept their yards. Out of the redwood bark I built sheds and outbuildings for the animals, and I used my white quartz to build stone walls to protect my Borrowers' moss gardens from wild animals or giants.

With sticks or perhaps my fingers, I hollowed out dirt from crevices between the rocks to make caves. Some I kept rough, as storehouses for acorns, redwood cones, and oat seeds; others I refined into dwellings for the humble folk, with moss-carpeted floors and doorways framed with oak twigs. I worked especially hard on the gardens for my cave dwellers. I imagined them sitting on their stoops after dinner or going over to the neighbors to visit, with their children running underfoot. Outside was where they took their pleasures. But the inhabitants of my world were, for the most part, industrious. They collected water each morning in the oak balls I provided, or stored seeds in them for the winter. They kept everything tidy.

This granite bank was one of my first classrooms. Building and digging were the best way I knew to play out my dreams, my longings, and my need to impart a sense of order to the world around me. I see now that this was the beginning of the learning continuum that would eventually lead me to the zoo and on into adult life. It was my work, just as the joy, the giggles, and the lingering and skipping was for the children I later admired

at the zoo. Yet, as my own two children have firmly taught me, adults must not ask too many questions about child's work. Children feed off the ways of the world, but how they digest all they discover and manipulate must remain their own secret.

I would not, even now, hazard a guess at the ways the children at the zoo might have used the peeling paint and litter as starting points for their own learning. But I am convinced that if they had continued to have free access to those materials, and if the adults around them had stood back and trusted them to work with those materials in whatever ways made sense to them, they might never have grown up the way most of us do — the way I did — tortured by the almost glacial split between what we tell ourselves we ought to be doing and what we love — between our work and our pleasure.

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Mel Rosenthal

Laura Robert *graduated from Empire State College in Ithaca in the summer of 1988. She is currently employed at the Cornell Law Library and in the process of taking classes and working on two manuscripts. The story* Learning to Write *comes from the first manuscript with the working title of* In the Country.

Laura Robert

Learning to Write

I had a dream about learning to write, and I would like to tell you about it because actually I thought it was a pretty good idea. And if I were to try it out I think it might actually work.

There were three people in my dream. Aunt Ann, my grandmother who we call Marilee and a doctoral physics student. What was also interesting was that I was each of these people at any particular time. Like there were three people's stories going on at the same time.

In my dream, Aunt Ann and Marilee were college professors and in their eighties. Two grande dames. They were responsible for seeing that this doctoral physics student, who was a man, with dark-rimmed glasses, maybe in his twenties, with a beard and dark curly hair and you couldn't tell where the hair ended and the beard began, passed.

Just before their final approval they decided that he really didn't know how to write, and so they devised a short curriculum that would they believed insure that he knew how to write. Once he went through the curriculum. The curriculum was this: they would give a short oral statement, more like a little story. Which they would just say. Not read, but they might have something on a paper in front of them. Then the doctoral student was to write what they said, not word for word, but giving the information. And if he left out anything, or added something that wasn't there, or didn't have complete sentences, or didn't follow any of the rules, then he would have to do it over again. It wasn't like he would flunk, but he would have to do it again until he got it right. And always the information would be the same.

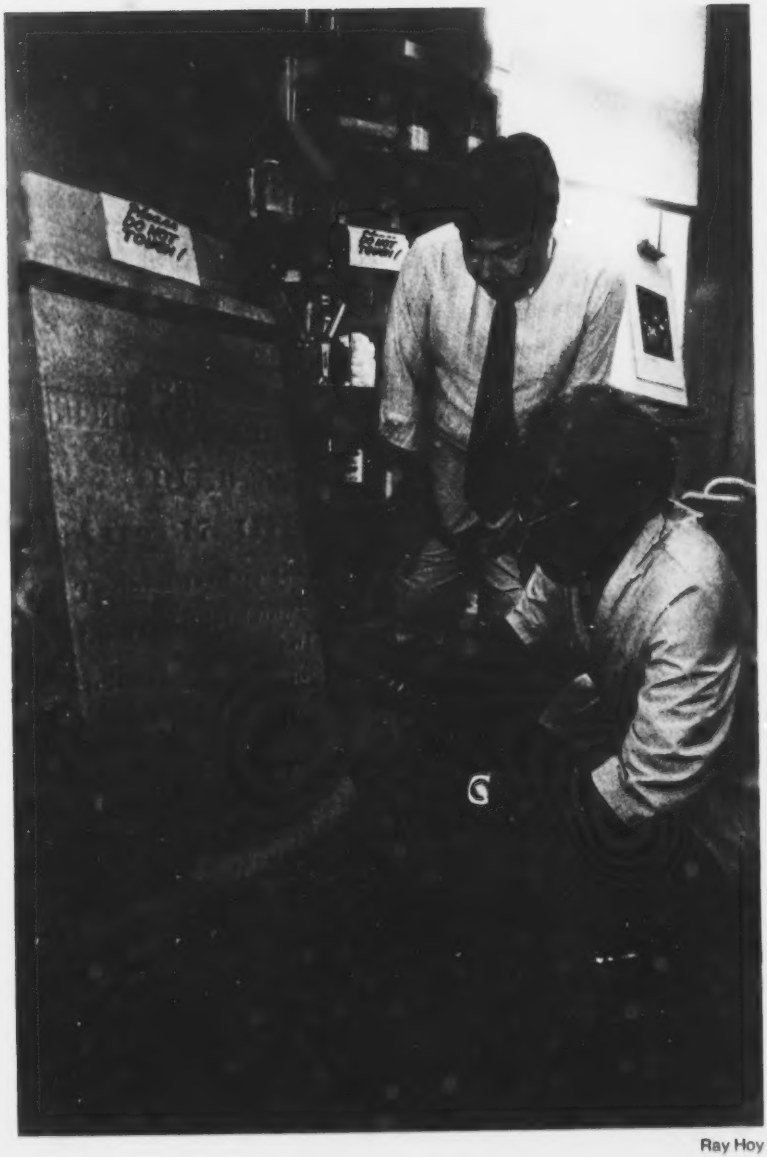
And it would count for thirty-five per cent of his grade. So the professors hoped that he would do this. Because they knew that he really couldn't write. And he knew he really couldn't write. Not really write. Like the way that they were talking about. Writing about what he heard. What he was hearing. And put it down so that it was understood what was heard was what was being written.

But he also knew, and the teachers did too that he wouldn't have to do it if he really didn't want to. And the reason was because it was such a crazy idea that he could appeal.

And he didn't do it. He wouldn't do it.

The teachers told him it would take maybe six times. That was how many times they thought they would have to repeat the information. So six weeks. But he said no. He said they were crazy.

And so he left. And they were sad, the teachers, because they knew he was a very bright student, but that he couldn't write. And he was sad because these teachers were his friends, and now he had to go get someone else to help get him graduated. And he was sad too because he knew they were right. But this really was too much that they were asking.



Ray Hoy

***Gary Goss**, a mentor at the Empire State College Long Island Regional Center, is also a writer and editor whose central activities include fiction and feature writing. He teaches literature, particularly the novel in most of its forms from detective fiction to the classics, tailoring the teaching-learning situation to the student's academic needs and interests. Goss is the founding editor of* Golden Hill *and has been a major force in the evolution of the journal.*

Gary Goss

Workplace

Below are some incidents that happened in a local workplace. Perhaps similar incidents have happened to you.

Incident One

You are at work. Your boss prowls about threatening workers with violence. He calls slow workers morons and shouts that he's going to kill them. He doesn't threaten to kill you, but you are too frightened to move or think in his presence. Your boss, consumed with invective, doesn't show you how to do your job — you flounder.

Incident Two

You are at work when suddenly you have to go to the toilet. You need permission from the boss to leave the factory floor, so you ask. You're told to shut up. Thinking quickly, you claim to be ill. You are sent to the sick bay, where a nurse lets you use her toilet and then must write a memo to your boss verifying your authorized visit.

Incident Three

You are at work. The foreman mocks and ridicules you each day until you burst into tears. Then he mocks you in front of the other workers for crying.

When you complain to the ombudsman, your foreman boils with rage, calls you a liar, and fires you on the spot. The company intervenes, shifts you to another job, and covers up for the foreman. The ombudsman claims that everyone else likes and admires the foreman. You and your whole family are sent for psychological counseling.

Later you learn that your foreman is known around town as someone who picks out one female employee from each crew — always a pretty one — to ridicule in public for however long the job lasts. The plant supervisor has tried for years to get your foreman fired, but the foreman has protection and a permanent position.

Incident Four

You are at work. Five of your fellow workers begin to harass you. Each day, at work, they call you a slut and ask you for oral sex. Finally, while you are busy working, one of them sneaks up behind you and grabs your breast. He wins a bet. You jerk free, and the other people on the job laugh at you.

You report this to a female supervisor who tells you that nothing important happened. According to the supervisor, the males you accuse, part of an elite work team, are first-rate people and would not behave badly. Your boss states that he saw nothing except you flirting.

No one in charge believes you were grabbed until months later, when, threatened by a visit from the State Human Rights Division, the supervisor reluctantly mounts an investigation and one of the molesters confesses.

Incident Five

You are doing piecework. You have more than met your quota, averaging 99 out of an impossible 100. Your final day on the job, your foreman, who keeps poor records, tells you that your piecework average is 85; much of your work has gone missing. You explain that you've done all of it. Your foreman asks you to provide verification before noon on payday.

so you gather up all your records and take them to the foreman at 11:50 a.m.

Your foreman then tells you that she doesn't want to be bothered with changing her report. You get the 85. When you protest, she fires you.

A Correction

The incidents listed above, lightly disguised, took place at a reputable suburban high school over the last three semesters. All of them happened to one fifteen-year-old girl, who is quiet and an excellent student.

Knuckling Under

The fifteen-year-old mentioned above was asked to transfer from an AP history class in which she had a 105 average into a standard history class. The problem began when she lay in bed with the flu for four days. A paper was due during that period. The first day back, she turned in the paper, but the teacher refused at first to take it. Perhaps he thought she'd feigned illness and stayed out of school for four days to write the paper. (If she had done that, she would have been learning, but not behaving correctly.) In any case, the girl and the teacher clashed. The girl protested his policy; the teacher told her that she was irresponsible, manipulative, stuck up, felt sorry for herself, and sought special favors.

The girl's counselor took her aside. He told her that she might be right on the policy issue but that she had to learn "to knuckle under." The counselor then went off to plead with the teacher, who finally readmitted the girl to his class and accepted the paper on the condition that she not speak to him. He said that he didn't want to hear her voice. He added that she could, if she wished, write him a letter of apology.

Another Workplace

One of my students comes in, a stout woman in her forties. She has six children (two in college) and a full-time secretarial job in a state agency. It's dull work, she's told me, but she's treated well. If she weren't, she'd quit.

The student is about as smart as people get, but for some reason this is her first try at college.

We begin a conversation I have had at least five-hundred times. She's frowning and won't look at me. "I'm sorry I missed the last meeting," she says hurriedly. "Did you get my message? My son was in bed with the flu, and..."

"I got the message. No problem."

She hesitates. Her hands are in fists. "I did write the final paper, but it wasn't any good, no focus. I tore it up. I was planning to go to the library last night and start over, but my older boy took the car without permission....I'm not prepared. I didn't want to turn in a bad paper. I know the contract is over. I'll accept whatever the penalty is."

"There's no penalty. I do want a good paper, though. Let's talk about how you find a focus."

Her hands come unclenched. "Oh, I can find a focus," she says. She sounds intense, not worried. "I have two ideas now. I just need a day to think." She looks at me, surprised, and smiles.

Ramsey Brous

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Marion Fey

Welding the Link: Classroom Writing and Workplace Writing

Dunnage, harnesses, and AGVs — these words from workplace environments become subjects for students who are learning to write as they work. Many of these students study technical writing because they know that their future career mobility depends, in part, on their ability to communicate well. They must write and speak, whether the task is to recommend a new system to remove industrial trash (dunnage), to propose a new supplier for electronic assemblies (harnesses), or to request the installation of an automatic guided vehicle system (an AGV robot). Students from disparate disciplines — business, science, and the human services — can learn effectively when they come together in a college environment to collaborate on writing projects drawn from their workplaces.

This production of real workplace writing becomes the motivating focus of the course Technical and Professional Communication. Though instructors often organize professional communication classes around hypothetical cases, I advocate linking classroom writing to workplace writing that is addressed to real audiences. Instead of the "banking" concept of education, criticized by Paulo Freire, in which educators deposit their own words to solve students' problems, solving real problems allows each student to find his or her own solution. In such endeavors, enthusiasm mounts because each student has a personal investment in the work. Unlike case study, "real study" enables students to see their efforts in the workplace and in the community.

Collaboration in Real Study

A curriculum design that allows each student to be an expert in his or her own subject also offers special opportunities for building confidence through collaboration. Cooperation outweighs competition when small groups consider fellow members' best interests rather than when individuals vie for first place. Thus class meetings can more nearly simulate a real professional environment where fellow employees frequently assist one another on special problems.

Collaboration begins when students bring copies of their papers to share with peer groups. This group participation transfers the emphasis from writing for the instructor to focusing on the intended audience. "What does the teacher want?" shifts to "Who is the reader?" and "What does the reader need to know?" Group members, intrigued by specialized vocabulary such as dunnage, harnesses, and AGVs, ask authors to define terms for a lay audience. The diverse reactions soon help students to identify specialized jargon that they may or may not want to retain in the document. When group members respond with "I'm confused" or "I'd like to know more," authors leave the session with an understanding of which passages need more work.

Since each group member has a real interest, and thus a different writing project, students do not compete for the best project but rather share knowledge to help each other present themselves expertly. At its best, the peer group becomes a support group. Individuals encourage each other with comments such as "You'll grab your boss's attention by moving this paragraph up front," or "You'll have a better chance of winning the proposal if you appeal to your audience more diplomatically." One student commented about the peer work, "I enjoyed the diversity of my group. Some participants who 'knew it all' soon discovered they really didn't, and others, who were shy or hesitant, completed the study feeling and looking very good." Another student commented, "I found that my peers had the same fears that I did. Sharing our anxieties gave us a common ground on which we could exchange our ideas." Even though this student initially hesitated in sharing assignments with peers, in the end she rated peer interaction as the most enjoyable part of the course. With each student investigating his or her own project, the student can more easily retain

integrity as a "subject-expert-seeking-guidance-in-communication," rather than an initiate, ignorant of both subject and skill.

Faculty from different disciplines, as well as students, can collaborate as team teachers. On different occasions I have led the study with a psychologist and an engineer. Both had valuable insights into what is expected of writing in a working environment; both showed me new techniques for helping students. As collaborating faculty with different frames of reference, we also experienced and modeled for our students what our students show us daily — the reality of miscommunication and the patience required to make ourselves known to those different from us.

Representative Assignments

How do students begin their real study, which simulates collaboration in the work place? How do students learn to link workplace writing with writing projects in the study group?

To begin their real study, students apply in writing for admission to the Technical and Professional Communication class. If their letters reflect a need for writing improvement — and most of them do — their authors become official class members. For the first assignment, students revise these application letters, paying special attention to the reader's needs as well as the author's. Inevitably, some students still err. They soon learn that considering audience means thinking imaginatively about the reactions of the reader. The letter below represents one student's revised efforts to acquaint me, the reader, with her course prerequisite and with her specific needs for improving her writing at the work place:

> May I be considered for your Group Study in Technical and Professional Communication? Two years ago I completed a basic composition course, and recently I attended with interest your evening workshop on writing the research paper. Now I need to sharpen my skills for professional writing. The Group Study is important both for my college program in the human services and for my current job. I work for the Rochester City School District as an occupational therapist. The job requires that I evaluate students' levels of perception, muscle tone, and

> joint action, as well as students' abilities to care for themselves. I then report this technical information to the Committee for the Handicapped, composed of lay professionals and parents. My job success depends on learning how to organize reports for these two groups of people.
>
> Your course gives me the opportunity to reach my goals. I look forward to working in peer groups and learning from your expertise.

This initial assignment introduces the course's major theme — writing for varied audiences in the workplace. After the first assignment, students realize that they must look at their workplace writing from their manager's or subordinate's point of view. They must find out about their reader's whims: Does manager Joe Smith value cost over quality? Does the grant agency prefer brevity or detail? Will an environmental commission want to know about dunnage or about industrial trash? Students practice asking such questions as they proceed to other assignments.

Early in the course students write a proposal, again to me, for their final projects. I request that the final project be a writing task from the workplace, addressed to a real audience, whether in the form of proposal, feasibility study, or instructional guide. On the basis of this proposal, I decide whether the project is appropriate for linking class writing to workplace writing. Some students stumble. Again, they do not think through what I need to know or need to be persuaded of. Instead of convincing me that a health club should convert to computerized record keeping, they should convince me that they know enough about the club and computers to handle the subject appropriately. After working with peer groups and also in the larger group, students revise the proposals to include appropriate sections, including the scope of the project and their qualifications for investigating it. They delete, for example, the details of an argument for changing office procedures at XYZ Corporation, saving that for the real workplace audience of the final report.

Sometimes students are not sure how to connect their work with academic writing projects. Both in the class and in individual conferences, we talk about possible real writing tasks. I ask many questions: What writing projects are you required to do on the job? What changes

would you like to make at work? Do you have suggestions to improve product quality or personnel motivation? We talk until the student has created a number of real ideas from which to choose. These efforts pay off. Students are satisfied: they can complete class assignments and at the same time undertake workplace proposals for new equipment or feasibility studies for new protocols.

Students without jobs can also learn from writing to real audiences in their lives. I encourage these students to find projects that will lead them into future employment or that will benefit their communities. One young woman wanted to become a math tutor at a neighborhood school. She was willing to start as a volunteer, but the school offered no volunteer positions. As a result, her writing project became a proposal to institute volunteer tutorials within the school. Impressed with the proposal, the principal agreed to put it into action and make her the first volunteer tutor. Another student without a workplace to link to a writing project also turned to the schools for a real-study project that would further her career. She decided that if she created a handbook outlining the possibilities of geology field trips and sent it to the science department of her children's junior high school, her application to substitute in this school would be more favorably received. Soon after she mailed the attractive handbook, she received her first call to substitute. Again, a real study contributed to success in the workplace.

Students also find real audiences in other parts of the community. Concerned about her children's nutrition, one young mother appealed to the school board to evaluate supplemental lunch foods. Another student, upset over the widening of the street in front of his house, developed a plan to improve communication between residents and the local town council. And still another student appealed to a home for the elderly to incorporate computers into its educational programming, particularly for alert clients with diminished mobility. He cited instances in which nursing-home patients network with other computer fans, interact with commercial outlets, and reconstruct their family roots with computer graphics. These examples of projects indicate that by talking with classmates or the instructor, all students eventually discover real topics that enable them to apply classroom writing to the world outside of academia. When students have satisfactorily completed the proposals for their

projects, they proceed more confidently to other assignments because they have a vested interest in the outcome of the final project.

A useful intermediate assignment is the written progress report. Here, as in the business world, students inform their fellow students and me about the work they have completed, the work that remains to be done, and the problems they have encountered. In this assignment they explain their search for supporting materials — from company reports, government documents, and/or business journals. One student reported that he had received an eighty-percent response rate to his inquiries about vegetarian diets. The same student related his interviews with health-store managers and restaurant owners, including the delicacies he tasted at the latter locations. Other students are not so lucky. Their reports bulge with problems of insufficient information, cancelled appointments, or changed deadlines. For all students, however, forecasting remaining work makes the project more manageable.

By this point in the course, students have noted that workplace readers appreciate impeccable prose. The progress report, with its opportunity for categorized lists and parallel structures, also lends itself to a discussion of sentence style. Students learn to connect ideas clearly, to use pronouns cautiously, and to substitute active verbs for passive constructions. When a sentence trips students, they turn to their group for help. They learn what good writers in the workplace already know — that two heads are better than one. Thus, by the time they have revised the progress report, they have a bag of tricks for breathing new life into dead sentences.

Now students begin to see results from the learning process in which they are engaged, a process that often seems dramatic because they see the consequences of their changes so directly. They are learning to make important distinctions as they focus on and articulate their experience. Realizing this real project differs from a purely academic essay, they now learn to shape their prose for manager, technician, and customer. All students discover that organizing according to reader expectations requires concentration. Students must solve still another problem as they consider how visuals will add to reading ease. Though inexperienced with tables, graphs, and charts, most students are intrigued by their application. Students read a paragraph of dense prose and design a graph or table from the same data. They then investigate how visuals can clarify and promote

their real projects. At the next class, students bring a sample of these visual creations, pleased with a change in communication medium. Learning generates enthusiasm as students admire a group member's simple graph clarifying complex data for the reader. Inevitably, a member who brings a chart with too much data or a fancy table with illogical categories goes home from this class with new ideas to implement.

Since graphics can also enliven oral reporting, the discussion naturally turns to oral presentation. Though most group-study activities focus on writing, speaking can also be integrated into a class devoted to real-study projects. Here I stress process. Using the subject matter of the final project, students simulate a real presentation at work. I arrange for the talks to be videotaped so that students can assess for themselves as well as receive constructive comments from peers. After the weeks of researching, interviewing, organizing, and writing, each student becomes the focus for ten minutes as he or she proposes, for example, the best set acceleration technique for Kistner Concrete, or urges the establishment of a hospice program in Wyoming County, or encourages the use of fiberglass ladders at Eastman Kodak Corporation, or requests funds to open an African-American beauty business. With practice, most students learn to manipulate visuals with ease. Those of us in the audience delight in the simplicity of John's pie chart; the minuteness of Mary's real harness with its blue, maroon, and white wires, cable connectors, and terminals; and the precision of Joe's enlarged sketch of an AGV robot.

Although students allay fears by pretending to address cabbages rather than kings, an occasional student needs a prod to participate. Most students, however, view the oral presentation as a highlight: "Now I know how I really look to my audience!" one student exclaimed. Another learned that nervousness doesn't always deter the performance. She commented, "After the presentations were completed, I realized that the people who appeared to be most nervous were the ones who had the most interesting and effective presentations." Occasionally students bring family and friends to these events. Children proudly watch their mothers and fathers talk about ethylene oxide, church advertisement, or newspaper readership. In one instance a boyfriend calmed a girlfriend's last-minute anxiety, and in the end she gave one of the most upbeat presentations, "The Feasibility of Careers for Women in Sales." After these sessions, the group relaxes at a pizza parlor, where informal learning has

been known to continue until early morning. When students write self evaluations of the talks, they cite numerous goals for improving oral communication at work. Whether they resolve to speak more slowly or to use notes more wisely, students understand better how to use a college to learn what will enable them to succeed in the workplace.

By the time students draft their final reports, they have become more sensitive to audience needs. Even though they address these reports to more specialized workplace audiences, I encourage them to retain some of the natural language used for the lay audience instead of reverting to stacked modifiers and excessive acronyms. As students consider organization, they rearrange chronological thinking into a more analytical arrangement that places important ideas at the beginning of sections and more specific ideas at the end. In one instance, a student discovered that by shifting background data to a second section and placing his purpose up front, he was able to strengthen his appeal to a college administration to discontinue using plastic containers in its dining facilities.

Students also learn to write for multiple audiences by including glossaries and executive summaries for the less technical worker or the busy manager. Since the projects exhibit different purposes, there is no single organization that works for all reports. Nevertheless, many of the reports contain introduction, body (divided into logical units), conclusions, and recommendations. Separating the recommendations from the conclusions is a new concept, but most students understand the reason for ending with action statements, particularly in feasibility studies. One student, who investigated the feasibility of technical innovations in the Ontario Court Justice System, clustered ideas in these sections: Ontario Justice Court in Action, Current Technology, Computer Aided Transcription, Video Documentation, Proposed Budget, Conclusions, Recommendations. Reports vary in length, depending on the complexity of the subject and the requirements at work. Many students develop appendices. For example, in "An Analysis of Michael's Compulsive Overeating Disorder," Jane, an eating-disorder counselor, included a fourteen-page appendix with specific daily programs, eating charts, and behavior review sheets — all tailored to Michael. In addition to the preceding sections, all reports include a letter of transmittal, title page, table of contents, abstract, appropriate figures and tables, and a list of references.

Reports are as diverse as the experiences bound within them. Nearly all students appreciate the results. Comments range from "I was able to implement the project immediately," to "My opinion carried a lot more weight after the administrator saw the professionalism of my proposal." When students have finally researched, written, rewritten, and formatted the project for delivery to its appropriate audience, I know that I have received more than a product. I have received the best efforts of disparate adults who, in discovering the process of technical and professional communication, have fulfilled their desire to improve their writing and also to make some small impact on their world. Whether those worlds include dunnage, harnesses, or AGVs, students have benefitted from combining classroom writing with real workplace projects.

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Elinor Greenberg
Lois Zachary

Juggling, Balancing, and Integrating: School, Work and Family for Returning Adult Learners[1]

Introduction

Change is the one certain thing that we know about the future. Although change has been with us forever, the rapidity of contemporary change and the fact that multiple changes now take place simultaneously are new phenomena.

Changes in the economy are altering the ways that workers, employers, and union officials view jobs. Changes in the marketplace are affecting productivity in every workplace. Changes in technology are affecting how all workers do their job. In fact, no place today reflects the escalating changes and uncertainties facing our society more than does the workplace.

> *I know that there's a change coming. I can feel this and I wanted to start preparing myself for that.*

Because of these complex and rapid changes, the idea of holding one job for a lifetime has become obsolete. The pressing need for today's workers is for multiple career options. Workers are beginning to take increasing responsibility for their own lives and careers because corporations can no longer guarantee them lifetime employment. The broad concept of "employment security" is fast replacing the narrow idea of "job security."

> *[I used to think] that we were somewhat taken care of: I am a secretary, therefore, I will always be a secretary. But I don't think that that's true anymore.*

The American workplace is changing so fast that only by adopting habits of lifelong learning can employees and employers keep pace with accelerating change. This means that more and more workers will find themselves becoming students once again, but now as adults with the full range of adult responsibilities.

PATHWAYS: The Context for Learning

"PATHWAYS to the Future" was born in a climate of accelerating change. As a result of a 1986 collective-bargaining agreement, a major corporation and its unions linked up with institutions of post-secondary education to launch a joint venture, called PATHWAYS to the Future, in order to include formal education in the regular, on-going human resource development system.

PATHWAYS began as a three-year (1986-89), $7.6 million training/retraining program, available to all 28,000 active management and nonmanagement employees of U S WEST Communications in seven states. As a result of the 1989 three-year collective bargaining agreements between the company, the Communications Workers of America (CWA), and the International Brotherhood of Electrical Workers (IBEW), PATHWAYS has been expanded to serve more than 40,000 eligible occupational U S WEST Communications employees in a total of fourteen states.[2]

PATHWAYS is a comprehensive training and retraining program that offers individual and small-group career and education counseling; orientations; skills, interest, values, and prior-learning assessment; pre-paid tuition and fees; and book reimbursement to eligible employees who enroll in eligible schools and colleges. Employees may pursue courses of study of their own choice, enroll in a number of eligible institutions, and set career goals both within and outside the company.

Between January 1987 and December 1989, almost 30 percent (29.9%) of all eligible employees in the seven U S WEST Communications states had participated in PATHWAYS. The profile of the typical PATHWAYS participant is: nonmanagement (82%), employed by the company for fifteen years on average, married with children (60%), thirty-nine years old on average, seeking a degree (75%), female (66%), and White (77%). Most participants are enrolled in arts and sciences courses, while many are working towards business and computer sciences certificates and degrees.

PATHWAYS Face-to-Face Interview Project

This article, which describes how working-adult learners attempt to juggle, balance, and integrate the roles of learner, worker, and family member, is based on extensive data gathered as part of the PATHWAYS Face-to-Face Interview Project (1988-89). Work, school, and family each became the primary focus at different points in the developmental journeys of Project participants. The PATHWAYS Face-to-Face Interview Project was an in-depth, longitudinal research study designed to investigate the learning experiences, thinking patterns,and developmental changes of U S WEST Communications employees who participated in PATHWAYS to the Future.

In funding and supporting this study, the joint company-union board of directors for PATHWAYS was primarily interested in answers to the following questions:

1. What are the impacts of returning to school on employees' personal, work, and family lives?
2. Is formal education making a difference? If so, how?
3. Can education assist employees in taking more responsibility for their own lives and careers and, thus, increase their employment security?
4. Can certain indicators of development be identified and measured? Does increased development increase an employee's chances for success within and outside the company?
5. Are there differences between male and female employees relative to education and PATHWAYS? If so, what are they?

In gaining information and insight into these issues, the board hoped to find ways to improve the effectiveness of training/retraining. Rich data and patterns of participants' growth unfolded throughout the eighteen-month study.

Face-to-Face Interview Project Participants and Method

Participants in the study were selected, proportionately, from the seven states originally served by PATHWAYS.[3] In Phase One (Spring 1988), fifty-nine new PATHWAYS participants were interviewed. In Phase Two (Fall 1988), fifty-four of these same participants were re-interviewed, whether or not they were currently enrolled in school at the time of the second interview. In Phase Three (Fall 1989), forty-seven of these participants were re-interviewed. The interviews were conducted locally, by four trained interviewers. Transcripts of the audiotaped interviews were analyzed, blind to identifying information, by the Syracuse Rating Group, educational consultants with expertise in the analysis of developmental data.[4] William Perry's construct[5] of intellectual development was used as a framework for understanding adults' developmental journeys, adults' learning processes, the impact of returning to school in the workplace and in the family, the sources of support for learning in adults' lives, the changes that can occur over time, and how adult men and women approach and benefit from new learning.[6]

Key Findings

Detailed information about the complexity of adult learning and roles emerged from these interviews. Three cognitive dimensions provided particularly powerful insights about PATHWAYS participants' developmental journeys. These were: View of Knowledge, View of Self and Self as Learner.[7] Each of these dimensions revealed statistically significant growth over the eighteen-month period of the Face-to-Face Interview Project.[8]

Among the key findings of the study were:

1. Participants' intellectual complexity increased over the eighteen-month period.
2. The women's patterns of growth and development were more dramatic and their growth line "climbed" more steeply and steadily than the men's did.
3. Those participants enrolled in school throughout the eighteen-month period showed continued and higher levels of growth than did those who had "stopped out" or who were not enrolled at the time of the third interview.

We believe that these and other findings demonstrate that education improves the personal, work, and family lives of working adults.

Juggling, Balancing, and Integrating

The focus of this article is the particular relationship between adults' intellectual development and their struggle to juggle, balance, and integrate customary roles they play along with their newly acquired role as students. These complex interrelationships are reciprocal. In other words, effective juggling and balancing both support and cause intellectual growth; and, conversely, intellectual growth is necessary for effective role juggling, balancing, and integrating. An interactive and complementary relationship exists between these phenomena. Managing role complexity is itself a kind of intellectual growth.

In this article, two Face-to-Face Interview Project participants are described. They exemplify the kinds of experiences expressed by other participants (and many, if not most, returning adult learners). The growth and development patterns of Louise and Ed (pseudonyms for actual participants) are traced over eighteen months and reveal their struggles to manage new learning in their daily lives.

The capacity to accommodate and integrate the role of learner with other adult roles, such as family member and worker, has become a kind of juggling act for the returning adult student. In fact, "juggling" is how working adult students often describe what they are trying to do:

> *I don't know how people do it taking full loads. Of course, they're not working straight, but to juggle it, it's really kind of hard.*
>
> *It's a tougher situation for most of us now because we're juggling careers and families and so on and in some situations juggling a few other things on the side too.*

The accomplished juggler can toss and catch balls in the air, while other balls stay in motion. Balancing is the hardest part of juggling. Balance is difficult to achieve. Each new ball requires a new accommodation. Timing is crucial and becomes increasingly important as more balls are added. Before an individual becomes adept at juggling and balancing, it is quite natural to drop a few balls and have to stop to pick them up, one by one. At these moments, the juggling act ceases temporarily, while the juggler regains balance. "Stopping out" is common, as adult students attempt to balance their work-school-family juggling act. This balancing effort is part of the process of learning to juggle. As with any other learned skill, it takes practice, time, and motivation to establish a rhythm that will work. Balancing, as meant in this article, is an effortful, consciously achieved stability. Integrating means that balancing has become a skill; learners are habitually acting according to their priorities.

Louise and Ed are each learning to juggle work, school, and family. In many ways, Louise and Ed are typical of the more than eight thousand PATHWAYS participants. Louise is just forty. Ed is in his mid-thirties. Both work in nonmanagement positions and have been with the company for many years. Each is a high-school graduate, married,and the parent of three children. Louise is Hispanic (the largest ethnic-minority group in PATHWAYS) and Ed is white. Both individuals can be described as high energy people. They exude interest and enthusiasm. Both have spouses who are supportive of their career goals and their decision return to school.

Entering PATHWAYS

Louise came to US WEST Communications with some business-school training. She began working as a credit consultant following the

birth of her second child and has been working at U S WEST ever since. She "didn't have time then," she says, "for anything else." But now that her kids are leaving home, she finds she has more time for herself.

> *My kids are all grown now. They're grown up and getting ready to leave home. So I have more free time on my hands, so to speak. [laughter] ...there's more time for the things that I wanna do.*

She had been thinking about taking some classes for some time; "and the day before classes started is when I decided to jump in with both feet." Her first choice was a computer class, but since it was filled, she took accounting. Her motivation for choosing these subjects was practical. She "could see it as being useful" at U S WEST and in the small family business she runs during her free time.

Ed is a telephone-repair person who spends his days in the field. He came to U S WEST right out of high school. He regrets that he did not go to college when his "mind was trained to study." In addition to working toward a degree in business education with a minor in computers, he has expressed an interest in general liberal-arts courses. By the time he started in PATHWAYS, he had completed a Dale Carnegie course and was taking sociology. Although he had been trained for his present job through the company and had completed a computer home study program, he says,

> *I really didn't care if I went to school, prior to PATHWAYS.*

Ed is hungry for new learning and is making up for lost time, taking three courses during his first semester. His day begins with a course at 8 a.m., four days a week. He gets to work at 9, goes to class two nights a week, and still manages to have time for his family.

> *I want a degree and I want to advance somewhere. I don't know whether it's within the company or not. My ideal job, if I get it, would be to go into the corporate level.*

He is energetic, determined, and focused. Employment security is the key motivation for him.

Time is the major factor affecting workers as they adjust to the role of learner. They recognize a need to learn how to juggle time.

> *I have to juggle myself a little better, I guess, and leave time for everything. There's time for study and time for work and there's also time for each other. Also myself.*

All participants seem to agree that they either "have to give up" some free time or "find" some free time in order to return to school. Now that Louise and Ed are students, they are experiencing more constraints on their time. Louise says:

> *This situation is tough as an adult learner because of all the demands placed on you. ...Self discipline is really a lot tougher because you have so many demands on you....I've gotta make a lot of demands on myself [to do the] things that need to be done — [to make] time [to] set aside for learning.*

The weight of these demands makes Louise feel a need to do something about them. Her perception of these demands suggests that she has an external View of Knowledge; she sees them as imposed. Yet she senses that these demands are going to require her to change internally. Even while responding to these imposed demands, she's forming her own ideas.

> *I like to sit back and listen and hear what other people have to say about it [an idea]. And then I kind of absorb those thoughts and come up with my own idea. You know my own relationship or thoughts about a certain thing.*

There is some suggestion that movement into a more personal view of knowledge has begun.

> *Um, my children were very skeptical when I started this. My daughter said "You're too old to go to school." [laughter] And I said, "Sweetheart," I says,*

> *"I'm going to school when I'm ninety-two." And I says, "I may be taking basket weaving or crocheting," I says, "but I'll be in school." [laughter] And I says, "My last day of school will be taken when I quit breathing. Don't think that it's silly for me to be going to school at my age, because I haven't finished learning yet. I'm just getting started."*

For Ed, learning involves "giving" and "getting." He talks about all the things he is giving up so that he can meet the competing demands on his time to concentrate on school work in addition to his job.

> *It caused me to change my life quite a bit. Like I was a pretty avid hunter and we had snowmobiles. I have a motorcycle I haven't ridden for two years out there. And I've put aside a lot of things I used to do to try to do it. ...Your personal life changes dramatically. [It] was quite a change. ...I had to adjust my time schedule.*

Ed's view of knowledge is what Chickering (1981) has labeled "education to get": to get information, to get A's and B's, to get the degree for security or for a promotion.

> *My responsibility is to get as much of it as I can get out of it. And what I expect of the instructors or colleges or schools or whatever is to give me as much as they can give me. ...I'm there for what I can get out of it.*

At this stage Ed's view of knowledge is also a rigidly dichotomous one.

> *There's wrong ways to everything and that's where most of my formal training has been. [It's] actually to show you the right way that they want you to do it.*

There is "so much" Louise wants to learn and absorb. Listening to other people's opinions and the discussion going on in the classroom is

her way of absorbing. Ed, too, is eager to absorb information. He is dependent on the instructor to structure his learning.

> *I made it a point to absorb as much as I can. ...I can't learn on my own. I have real trouble with loosely structured study like an independent study where you really don't have any deadlines to meet.*

Louise also looks to structure, to peers, and to schedule, for support in learning.

> *So there's a lot of people that play a part in the learning process and then myself, you know.*
>
> *And if you're combined with a group of other people and there's a certain pace established, then you've gotta keep up. You've gotta be motivated. You've gotta be there and have x amount done.*

Both Louise and Ed are trying to carve out a physical space for their learning. Ed needs to be left alone. Louise studies at the workplace.

> *Everybody has to just kind of leave me alone at the house.[Ed]*
>
> *It's hard to find a quiet time, a quiet place sometimes where you can study and learn. ...A lot of times I've even stayed here and worked late, 'cause it's quiet here a lot of times and I like a quiet place where I can study sometimes or read. I've stayed here late some nights and read and worked. And I've gone to the park on my lunch hour. [Louise]*

Ed tries to give his children his own motivation to continue school.

> *We're trying to instill it in our three daughters the importance of education. And, uh, they know I*

> *didn't graduate from college but they go to school, two of my daughters go to school now and they see me going to school even now. And I'm hopin' as far as my going to school also will instill in them a need to further their education beyond high school.*

Louise also sees her motivation spreading in her household.

> *I think that it's contagious. It started with me and maybe my daughter, and my son wants to go to school also. So it's getting to be a real contagious thing and I think they're looking a little further. And they're trying to reach out and absorb more, I think, and learn more. ...My husband was the one that was the biggest thrill for me when he went out and bought that computer and says "I'm going to learn how to use it." He went out and signed up for a class and here we go. And that is a motivator.*

When they return to school Ed and Louise have an external view of knowledge. They are very concerned with managing to juggle all the demands on their time, but each is motivated to push forward.

Six Months Later

After six months in school, participants focus their discussion in the interviews on the impact their learning has had on their families. Trying to balance family, work, and school force both Louise and Ed to realize that in order to establish a balance "something's got to go."

> *I've given up hunting since I started this. I used to really enjoy hunting and fishing at the high lakes and I haven't gone for two years now, just because I haven't been able to squeeze the time in anywhere to do it. I still have to have time with my family and the time I would have spent hunting or fishing or anything like that, I spend with my family now. [Ed]*

> *I need more time. Time is the difficult commodity.... Time is the biggest factor in this whole thing....you have five hundred other things that are staring you in the face that need to be done, so it's still kind of difficult when you're at home. So, for me, I have found the best thing is just to pack up and get away from there. [Louise]*

Each has grown since the last interview. Both Louise and Ed have experienced the feeling that "I can do it," as a learner, and are generally more open to learning.

> *I catch myself now even trying to read at work sometimes... during lunch or something. Or if I'm waiting on somebody.... If I get to the location and they're not there, I find myself reading stuff....I find myself reading a lot more of everything, not necessarily my schoolwork, but papers and anything that happens to be at hand. [Ed]*

> *I think there's always some times to learn something. [Louise]*

By the time of the second interview, more than two-fifths of the Face-to-Face Interview Project participants had higher ratings in View of Knowledge, Self as Learner, and View of Self than they had revealed six months earlier. There were fewer simplistic and concrete responses in the second interview.

Louise now shows evidence of more developed reasoning and less dependency on others for information than she did before.

> *I've learned how to trust my own judgment in a lot of things. ...I've learned that other people don't always have all the answers. I can find a few of my own answers if I look deep enough. ...I try to find a different way to look at it. Maybe not necessarily the way the author has presented the views, but maybe to look at it through my own perspective and to rationalize something out that way.*

Having completed her accounting course, Louise wants to concentrate on accounting and business law. She is aware of her own growth and is more in control of her life. Not only does she articulate her priorities, but she is acting on them, making time for herself and her agenda. She is self-confident and clearly owns her own decisions. She has learned to balance and has begun to internalize what she has learned.

This lesson did not come easily to her. While trying to be "supermom," Louise became physically ill. This illness was a turning point for her.

> *In the last six months, I think I have learned how to say "no"....I have to set my priorities.*
>
> *Children, spouses tend to have demands and things they expect of you. I physically became ill and I began to re-evaluate a lot of things...and determine my own priorities — what things were important to me....It was hard. It wasn't easy to do , but it was necessary.... I think it's probably the best thing I could have ever done and I should have done it a lot sooner.*
>
> *I've learned that I cannot be a master juggler and do everything for everybody....They expect you to be a supermom and I've learned that's an impossibility.*
>
> *I have learned not to run out to the bakery and run back home and come up with a dozen cookies at the last minute's notice. I've learned to say, "Gee, too bad. I'm sorry you had to wait this long to tell me about it because it's just impossible right now."*
>
> *I have to set my priorities.*

Just as her view of knowledge has expanded, so too has her ability to see and affirm alternatives for herself. Louise has learned to trust her own judgment and to take charge of her "self."

> *I've learned how to do things that are rewarding to me personally.*

Ed is also more open than he was during his first interview. His determination to reach his goal and his engagement in the learning process itself are stronger. He is "aware of more things," including his own attitudes about learning. He is enjoying going to class and is genuinely surprised that he is reading more and is open to more possibilities. He is taking courses as quickly as he can.

> *Over the summer I took three business law classes and seminars and an economics class and right now I'm in an English, a psychology, and a ... civilization class. I have nine hours now.*

Ed articulates a need for his own continuous learning. His view of knowledge has expanded from a dichotomous world view to one in which truth is becoming personal as he begins to open up to new perspectives.

> *I just feel like I'm more aware of, like the economic conditions in the United States, things like that mean more to me now than they used to. I find myself picking up* USA Today *once in a while and just seeing what the money's doing and some of the markets and things like that are doing, which I really never had an interest in. I never understood what was going on with them to begin with....I saw this stuff in the papers but it was just some more ink wasted to me. I kind of understand now what's going on with it and it's pretty interesting.*
>
> *I've really kind of created the desire within myself.*

Ed's view of self has also expanded. He is aware of changes in himself, particularly in his attitude toward studying and toward other people. He continues to want a structured learning environment but is better able to tolerate diversity. He even plans to do an independent study in English next semester, which is a big step for him.

Family support is critical in the struggle to achieve balance. Participants describe the kinds of ongoing support within the family that

make participation in PATHWAYS possible. The family enables the learner to focus and work hard. Ed's family has "been there" for him and is supportive while he crams three college courses into his work schedule.

> *My wife helps me a lot because she has to put up with me not being there, and she has to put up with anything that I used to do that I can't do now because of that. And my kids, also, are a big aid because they understand the situation and...that takes some of the load off of me.*

And Louise's husband is supportive as well:

> *My husband has been an absolute saint. He's just been wonderful.*

After six months in PATHWAYS, both Louise and Ed have also grown in self-esteem and self-confidence. They know now that they "can do it." The growth in self-confidence that we see for Louise and Ed, as our statistics show,[8] is typical of Project participants after six months of coursework. This increasingly confident view of self doesn't simply mean that people feel better about themselves; it indicates that there is a change in the perception in their "role of self" in knowing, as well. As view of self increases, so does self-confidence; and the move from external to internal control becomes evident. Role complexity may increase, but the learner feels more in control of that complexity and more adept at juggling various roles.

Eighteen Months Later

PATHWAYS participants are aware of their own improving performance in the workplace. Some participants describe a feeling of empowerment. Still others talk about the effects of "opening up:" being more assertive in the workplace and improving relationships with co-workers.

> *I perform better because I'm looking out more for the big picture, not just for myself.... We're all cogs in that wheel and we all contribute something.*

> *Now when I come back to work, I think I'm even better at it. It's not that what I was learning at work didn't help me on the outside, but by the same token, going through that on the outside I can bring it back and apply it to work.*
>
> *I feel more relaxed in being able to converse with other people.*

Both Ed and Louise play an active role in their own improvement.

> *Anything that I do in my job to improve it, it's because I want to do it for myself. ...So you have to do things to make your life and your job more interesting to you. So what I began to do in my work was to try and relate with my customers better. [Louise]*
>
> *I'd say toward my job in the years in the past that I've never been able to understand why the company did certain things. Some of these business-oriented classes that I'm taking...I can understand their reasoning behind their actions and when I see them come out with a letter of a change or something, it doesn't affect me as dramatically as it used to. [Ed]*

Participants' learning is continuing to make an impact in the family. The role modeling that had begun taking place is even more pronounced eighteen months later. Both men and women participants are proud that their children are affected.

> *I wasn't motivating my daughter to go to school because it wasn't of interest to me. Well, now she has got booklets upon booklets and catalogs to go to school she even told me. She says, "Mom you did it and look how old you were." [Female participant]*
>
> *Because I went to school...he's real interested in computers, and that's the way it's going now. [Male participant]*

Some participants also seem to relate better to their children as a result of their own new appreciation of education.

> *It certainly helps me personally, helps me with my family, helps me with my daughter. I mean she's helping me and I'm helping her....It has a very positive bond in that regard. I've been just generally pleased with it.*

> *We have learned and grown and experienced a lot of really wonderful things as a result of me going back to school this late in life....It's been really good for me. Really good for all of us, I think.*

Increasing flexibility has enabled Louise to sustain the balance between work, family, and school. She gives this advice about flexibility to new PATHWAYS participants.

> *Flexible means that you're going to have to use [work] breaks sometimes for homework. You're going to have to use lunch hours for reading. You're going to have to maybe stay up late or get up early. You're going to have to make time to do it. So, you're going to have to be flexible....It's a tough situation for most of us now because we're juggling careers and families and so on and in some situations juggling a few other things on the side too.*

Louise can make this statement because she has gained increased cognitive complexity. Learning has interested her in new challenges.

> *I can expand my own horizons. I've never seen the ocean. I've never flown in an airplane. I may never do that in my lifetime, but that doesn't mean that I'm earthbound. My mind, my soul, and my spirit will soar. And this is the way I look at life.*

Ed's perspective is also becoming more expansive.

> *I feel like the open-mindedness about trying to learn something again at school, it gets carried over*

> *into my personal life and I can see ways to improve myself.*

And, related to his expanding view of knowledge, Ed says:

> *Education gives you a constant challenge, because I don't think you could ever learn everything there is. It'd be just an ongoing thing. There's always something new out there.*

Although Ed is still determined to have his degree by his fortieth birthday, he recognizes now that his interest in learning will continue beyond the degree. Learning has become an end in itself. He has learned that learning opens one up to different perspectives rather than just revealing the "right way."

> *[With more education] you see more angles of life and everything than you did before.*

This really remarkable change in his view of knowledge is also evident in his more reflective and complex view of himself as a learner:

> *There are two sides to the issue; even my issues there was two sides to it and I was aware of both sides. I was just arguing the part that was more favorable to me.*

Ed is willing to set everything else aside to concentrate on his goal. He has been continually taking courses toward a degree, but has had to cut back this semester from nine hours to "only seven hours" because of pressures at work, taking only early-morning classes and dropping his evening classes. He sees many changes in how he looks at things. He is able to take things more in stride.

Louise's third interview illustrates increased contextual and integrative thinking.

> *I may not agree with what they're saying because I may have my own preconceived ideas on some*

> *thing, but if I can at least stop and look at it, then that helps me, I think, in trying to understand a whole picture rather than just a portion of it.*
>
> *...Everything that you learn can be a basis for something else. Kind of like building a house. It doesn't stop with just the foundation or the first brick. It's a basis really and the building ground for something new that you can go on to.*

Louise has developed a self-assuredness, a willingness to listen to others, and an independence in pursuing knowledge. She reasons things out for herself and explores ideas analytically in the interview.

> *I can't be in everything. I can't be a doctor. I can't be a lawyer. But those sources are there, okay. And what I need to do is know what the problem is and refer to the sources for the answers.*

Although she is not taking courses this semester because of work-schedule conflicts, Louise has now decided to pursue a degree in business administration and is even seeing new possibilities for herself at retirement. She has found time to be a volunteer in her children's school.

> *I would love to work with children. In the short time that I worked with these kids, I did see some changes and some differences in their attitudes; and for me, maybe in ten years when I retire from the phone company, if I could have a job maybe just working in a classroom, maybe even as a teacher's aide, maybe even as a teacher, I don't know, but to me, I would like to see that change.*

When both Louise and Ed were asked what stood out for them about their PATHWAYS learning experiences, they had a great deal to say. Louise explained that

> *I wasn't through learning yet. There was still more that I could learn, that I still had the capacity to learn, that I wasn't too old. And, it kind of, I think, in*

> *a way unleashed a lot of inhibitions and brought out a new self-confidence in myself.*

And Ed said,

> *I do think that there's a period of time when you first start back to school that you're ready to throw it back out because I felt...well, it was more trouble than it was worth....That's the period of adjustment ...you have to go through between not learning and trying to get back into the track....I think I'll learn more than most of the people that are in my class or the traditional college....I'm aware of what I'm after now.*

Juggling as an Integrative Learning Experience

As PATHWAYS participants make the transition to a new stage in their careers, a primary task is to find better ways to juggle the many adult roles that they need to play. Effectively maintaining the balance between work, family, and now school is a major challenge. By the third interview, after eighteen months have elapsed, maintaining one's balance in that juggling act has become a source of self-satisfaction.

When Louise began taking accounting, integration was only a promise. She was weighted down by the variety of roles she played: student, parent, worker. Her desire to "do it all" resulted in physical illness. That illness forced her to re-evaluate her priorities. She learned to say no, to share responsibilities instead of shouldering them all by herself. Integrating her various roles, Louise has invited challenge into her life and she is energized because of it. She no longer needs to expend energy on maintaining the balance. Balancing has become internalized, a part of her life. She has learned integration. When she began in PATHWAYS, knowledge was external and utilitarian, but she had developed some self-awareness. Six months later, she had taken on more responsibilities, had become more confident in her own abilities, and had begun to value her own judgment. Eighteen months later, her commitment to growth and change resulted in a real integration of her work, school, and family life, as well as in an integra-

tion between what she learned in school and how she uses her new learning on-the-job and in the family.[9]

Ed's story also illustrates dramatic change. At first, he was eager to absorb knowledge and get his degree. Now, learning has become contextual and ongoing; learning is valued for its own sake. When Ed began in PATHWAYS, he felt that he couldn't do an independent study. Six months later, he not only talked about doing it, but his dependence on external authority had given way to more self-directed, independent learning. Initially, Ed saw the degree only as a means of career advancement. Eighteen months later, he is much more aware of what he is after. He's changed his attitude from "just wanting the degree," as an end in itself, to viewing degree achievement as the means to a broader end. His thinking and acting are integrated. His perception of self has grown to the point where he affirms and trusts himself as a learner. He now interprets his actions and relationships between himself and others and recognizes his own growth in these areas. He also articulates that he is able to "take more things in stride." Ed perceives differences in how he relates to people; he has learned to be more lenient and more understanding of others. Learning is now part of his routine and is integrated into his everyday life.[10]

Integration does not mean that things always go smoothly for Louise or Ed, but they are now able to maintain their perspectives and better establish their own priorities. The skill of integration is transferable; they will be better able to keep their priorities in focus even when circumstances threaten to blur them. Education has played a powerful role in promoting growth for Ed and Louise. Each has learned that an ineffective balance between work, family, and school creates stress and negatively influences the learner by creating additional pressure to function well in all areas. In learning to juggle skillfully the various roles that they play, Ed and Louise have developed more intellectually complex and dynamic lives. Louise and Ed have learned to effectively manage self, work, and family. This is, in and of itself, an important educational achievement.

Conclusions

During the eighteen months of the PATHWAYS Face-to-Face Interview Project, most participants showed steady growth in intellectual

development. The third interviews reflected a higher level of developmental thinking than did either of the previous two. Hand-in-hand with that intellectual development has come the ability to juggle, balance, and integrate the roles of learner, worker, and family member. Using and adapting Perry's developmental scheme has allowed us to increase our understanding of the relationships between intellectual development and the juggling act required of working adults upon returning to school. Development of self-confidence helps adults to affirm their identity and regain self-respect. As workers become more secure in their sense of self, other parts of their lives are positively affected. And as growth and development progresses, so does the ability to balance various roles and to integrate new learning with everyday tasks in the workplace and family.

With more rapid and increasing numbers of changes in the American workplace, more and more workers will find themselves returning to school at various points in their careers. This means that juggling and balancing will become normal experiences for increasing numbers of working adults. If returning to school, as an adult, is to be more than simply fulfilling requirements by enrolling in a string of courses and receiving a credential, then the integration of new learning and skills into the behaviors and attitudes of everyday work, family, and school life should be recognized as a compelling educational objective. We believe that this longitudinal study demonstrates the importance of that goal.

Notes

1. The authors wish to acknowledge the contribution of Joan Hannum, Rating Consultant, Syracuse Rating Group, in preparing the material used in this article.

2. The original seven states were Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; the seven states added in 1989 are: Iowa, Minnesota, Nebraska, North Dakota, South Dakota, Oregon, and Washington. PATHWAYS resulted from the 1986 collective-bargaining agreements between the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW), and the former seven-state "Baby Bell," Mountain Bell. In 1989, after Mountain Bell, Pacific Northwest Bell, and Northwestern Bell were combined under the

fourteen-state umbrella of U S WEST Communications, the company and the unions negotiated training and retraining provisions into their labor contract in order to serve more than 40,000 eligible occupational employees throughout the new region. CAEL, the Council for Adult and Experiential Learning, was selected to design and administer PATHWAYS in 1986, and continues in this role as PATHWAYS is expanded to serve the entire fourteen-state U S WEST Communications region.

3. In Phase One, fifty-nine participants were selected, proportionately, from the seven US West Communications states participating in PATHWAYS (Arizona, Colorado, Idaho, Montana, New Mexico, Utah, Wyoming). These participants met the following criteria and agreed to be interviewed three times during the spring of 1988, the fall of 1988, and the fall of 1989: (1) They had submitted Career/Education Plans to PATHWAYS between 12/1/87 and 2/18/88. (2) They planned to continue their education during the next eighteen months. (3) They were essentially new re-entry students. (4) They planned to remain in their current geographic areas for the next eighteen months.

4. Each audiotaped interview was transcribed and analyzed by two of the three raters involved in the Face-to-Face Interview Project. Consensus ratings were reached for each of the total of 161 interviews conducted over an eighteen-month period. In cases where there was no agreement, the third rater analyzed and rated the interview. A consensus rating was then negotiated among the three independent raters. A qualitative summary for each interviewee was completed. In addition, a content analysis of the interviews was completed by the Syracuse Rating Group. Trends and theme patterns were identified and traced throughout the interviews. Each developmental cluster was analyzed by gender, using both quantitative and qualitative methods. The quotes in this article were taken, verbatim, from the audiotaped interviews.

5. The Perry Scheme, developed by William G. Perry, Jr., (1970), describes how learners think. According to Perry, thinking proceeds along a continuum of growth from simple (dualistic) thinking to many-opinioned (multiplistic) thinking toward more complex (relativistic) thinking.

6. Perry studied traditional-age college students (eighteen-twenty-two year olds) in the mid-sixties, when students generally attended college full

time, for four unbroken years. Today's adult students no longer fit into that age group. Intellectual development among adult-learners is not neat and even, and reflects much intra-individual variation. That not withstanding, the application of the Perry Scheme to the practice of adult education is alive and flourishing. (Among the growing number of studies: Buerk, 1981; Daloz, 1981; Greenberg, 1981; Lancaster, 1984; Pollack, 1984; and Zachary, 1986) Adaptations to the cues that identify developmental positions for adults are continually being made based on this increasing adult database. For example, Zachary, et al., 1988, Mentkowski, Moeser and Strait, 1983.

7. "View of Knowledge" refers to the patterns of thought with which an individual organizes his or her thinking. Individuals' patterns of thought are based on different assumptions about the nature of knowledge. "View of Self" refers to "perception of the self in knowing." One student might say "I proved to myself I can do it," while another says, "I've always been kind of shy and unless I know somebody I just don't have the confidence." "Self as Learner" refers to the "perception of self as a learner." Many participants saw themselves as active learners, putting forth much effort and hard work. Others described themselves as participants in their own learning process.

8. The average growth rate for View of Knowledge moved 1.3 points from Phase One to Phase Three. (Level of Significance = .02) Growth with regard to View of Self was even more dramatic. The average growth on this dimension was 1.6 points. (Level of Significance = .003) In "Self as Learner" the average growth was 1.2 points over the eighteen-month period. (Level of Significance = .01)

9. Louise's ratings over the eighteen-month period of the PATHWAYS Face-to-Face Interview Project were as follows:

	Phase One	Phase Two	Phase Three
View of Knowledge	334	455	556
View of Self	334	566	566
Self as Learner	334	555	556

10. Ed's ratings over the eighteen-month period of the PATHWAYS Face-to-Face Interview Project were as follows:

	Phase One	Phase Two	Phase Three
View of Knowledge	233	344	455
View of Self	334	444	555
Self as Learner	334	333	455

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Morris Keeton

Old and New Ground in Adult Learning

Thirty years ago I participated in a teaching experiment concerned with student autonomy in learning. Fifteen faculty members over a period of four years taught both control and experimental sections of the same course. In the experimental sections, while limiting our time to no more than that spent in the control sections, we sought to introduce to our students opportunities for independent learning. One year when I drew four times as many students in the experimental section as in the control, I was still obliged by the ground rules to spend no more time with that larger group than with the smaller group. The large section nevertheless matched or exceeded the learning gains of the small section in every aspect of the assessed results. Thus, from personal experience I know that far greater efficiency in the facilitation of learning is possible than is commonly achieved, even without the more recently developed marvels of new technology.

Today, unlike thirty years ago, efficiency has become a critical issue, especially for adult learners. For the first time in history, as Patricia Cross noted at a recent conference in Michigan, it has become a duty for adults past the traditional school-going age to continue their learning. This requirement developed rather suddenly, as social changes go. At the beginning of the century it was downright odd for an older adult to turn up in a college class. By the early seventies the situation had changed sufficiently so that arguments centered upon the rights of adults to ongoing education. But today, recurrent and substantial learning episodes are beginning to be seen as obligatory. For example, in 1985 some 6.2 million adults in the United States, or 4.3 percent of all adults over 25, were enrolled in credit bearing studies (Aslanian & Brickell, 1988).

These figures scarcely begin to tell the whole story. We are told that the knowledge base for the American economy will double within the next decade and that innovations in technology will outpace the knowledge of how to use them. We are told also that 50 percent of new jobs in the 1990s will require college education, an unprecedentedly high percentage, and that an even higher portion of other jobs will require the reading, writing, and mathematics skills expected of high-school graduates. Even blue-collar jobs will increasingly call for the capacity to work effectively in teams and to diagnose problems in production processes. Thus, higher-order cognitive skills — skills in analysis, evaluation, and synthesis — will be essential in more and more jobs.

Given these changes, it seems certain that every worker will need substantial retraining at least once every five years. Ideally, these workers will also experience frequent "brushing up" along with on-the-job practice. I translate this combination of minimum learning tasks into an effort averaging at least five hours a week, a figure also proposed recently by Toffler (1986). The effort would occur, not continuously, but typically in bursts. Training might begin, for example, with some days of full-time instruction, followed by a few hours of follow-up practice each week for a number of weeks, and then by lesser amounts of ongoing maintenance practice. Then, with the next technological change in the workplace, the process would be repeated. Every two years or so a more fundamental updating would be needed. Workers with more complex responsibilities might require considerably more investment in new learning, including an occasional leave of a month or more for formal studies.

What keeps us today from looking vigorously for greater teaching efficiency stems in part from the deeply ingrained idea that teaching is a labor-intensive calling. From that assumption, we mistakenly infer that any reduction of teacher time with students (or any increase of the numbers taught by one instructor) must come at the cost of quality and learning gains. We must challenge accrediting authorities and federal funding agencies which act as if seat time were the only reliable measure of learning, and show them that much greater efficiency in learning is possible in both faculty efforts and student gain.

What are the keys to efficiency in learning? In the experiment I described earlier, it was important that students be provided with early and

repeated clarification of intended learning outcomes and with repeated testing and feedback. Nonetheless, the major key, I believe, was the thrust of responsibility upon them. Thus, learning efficiency depends importantly upon generating learners' self-esteem and motivation to fulfill their potential and developing their capacity to be effective managers of their own learning. In addition, teachers need to individualize learning processes so that learners can move at their own pace, master the basics before being pushed to more complex tasks, and focus on what they themselves want to learn. Finally, teachers and learners must learn to capitalize upon the new tools for inquiry and intellectual production, such as the computer, the videocassette, the videodisk, and even newer inventions that combine the powers of these tools to cope with more complex and sophisticated tasks (such as retrieval of enormous libraries of information in one's own home or office).

Here I feel impelled to introduce a gripe list that has built up over my half century of professional service in higher education — five complaints about the content and conduct of learning in colleges which, if addressed, could enhance efficiency in learning as well as the importance and usefulness of that learning to adults. First, the development of generic capabilities has been neglected in favor of highly specific knowledge and skill acquisition. Most current curricula focus upon mathematical and verbal skills (useful in academia and in some jobs) and upon the accumulation of knowledge. Yet Winter *et al.* (1981) found that with jobs requiring a college education none of the usual indices of accrued knowledge (grades, honors, knowledge scores, SAT averages) correlated highly with vocational effectiveness. What was important were generic capabilities — intellectual, entrepreneurial, interpersonal, and maturational — without which knowledge and skills cannot be appropriately used, and with which even forgotten knowledge can be retrieved and applied. These capabilities are learnable, but if they are to be learned, undergraduate studies in most institutions will have to be radically redesigned.

Second, teachers rarely provide clear expectations to their students or frequent analytic feedback on how well they are doing. Learners need to know in advance precisely how they will be assessed, and on what, and then learn what their errors and shortcomings in performance are and specifically how these can be corrected and improved.

Third, too much thought about teaching and learning in college is devoted to courses, classes, star teachers, and departments. The focus should be upon the development of adult learners as they interact within appropriate contexts, not just the ivory tower. What does it profit a learner of an ethnic minority to be among high SAT scorers in an environment that demeans Black or Hispanic histories and cultures? Or, what does it do to potential scholars to live in a culture that glorifies exploitative sports or that invests disproportionate efforts on one-upsmanship in professional advancement?

Fourth, far too much emphasis is put upon recall and analysis of received information and far too little emphasis put upon the application of given ideas and the invention of better ones. We need to provide an astute interplay of theory and experience, of the grasp and critique of abstract ideas on the one hand and, on the other hand, of the application and testing of those and alternative ideas in useful and important tasks. Colleges stress their aim of cultivating good citizens, mature persons with well-chosen values, and even leaders for society. None of these outcomes can be achieved through book learning alone.

Finally, only lip service is given to the development of learner autonomy. A major effort needs to be devoted to the practice of independent learning. Adult learners need to be encouraged to take ever greater responsibility in developing their own learning objectives, methods, and results. Learning to learn, and doing so under one's own steam and direction, should be the highest priority on an adult learner's collegiate agenda.

In addition to the need for developing more efficient methods of teaching and for becoming more responsive to the purposes of adult students, a whole new magnitude of support services will be needed to establish and maintain the level of participation that we now anticipate. Prevalent patterns of support for continuing-education students and adult re-entries to regular undergraduate programs are currently far from adequate, especially for those adults who continue to carry full-time jobs, be good parents to growing children, and cope with the escalating costs of contemporary living. CAEL (Council for Adult and Experiential Learning) has recently managed two employee growth and development programs which achieved participation rates five to ten times the national average. In

one program sponsored by two unions and a corporation with a workforce of about 28,000 persons, participation reached as high as 20 percent per year (compare the article by Greenberg and Zachary in this issue of *Golden Hill*). In another firm the rate rose to over 30 percent in two small worker groups of two and five hundred employees respectively. Much of the success of these programs was probably related to the following conditions and services which are hardly ever available otherwise in such programs:

— concurrent announcements by employer and union that jobs could no longer be guaranteed and that to remain employable workers need to upgrade their qualifications and relate them to the kinds of jobs actually in need of additional workers;

— prepayment of tuition (versus reimbursement after course completion) by the employer or bargaining agreement;

— no requirement that the tuition benefit be tied to studies directly related to the worker's current job or employer;

— career and educational counseling, including diagnostic testing, paid for by the employer or bargaining agreement, and linked to eligibility for free tuition and related benefits;

— workshop opportunities on such topics as choosing a college, coping with the one chosen, managing the load of family, work, and study, and choosing appropriate next jobs and lines of career development;

— reimbursement of book costs upon course completion;

— active outreach to employees by an expert advocate body, such as CAEL, using imaginative and energetic ways of attracting and sustaining participation;

— access to as broad a range and number of legitimate and qualified education providers as feasible to make available options to fit every legitimate worker need and preference;

— training of counselors, of faculty liaisons, and of faculty asssessors to create a cadre of welcoming and qualified education providers for participating workers;

— research and other evaluative studies of the program promptly fed back to the sponsors and participants.

If these support services provided by business, labor, and education working in concert can produce such high levels of participation in formal education, what might be the result if similar efforts were addressed to informal education? A recent study by the American Society for Training and Development (1986) estimated that expenditures for informal on-the-job training and education are today six times that of formal training and education. Tough and others in studies from the past two decades have repeatedly found that informal learning constitutes at least 80 percent of the adult learning effort. If participation in formal study is increased five to ten-fold, some informal study will no doubt be supplanted, but, especially if it continues to be strongly supported, surely not all. How could such vastly expanded participation rates be handled?

In the early 1970s, Jack Arbolino and John Valley were charged to examine the potential of an external degree program. They reported that in order to actualize what they saw as a great potential, a National University needed to be formed (1973). In the interval since 1970, a number of external degree programs were established. In the aggregate, they service today at any one time nearly fifty thousand adults per year. Yet, perhaps five times that many have earned credits (anywhere from ten to ninety semester hours) that could be applied to conventional degree programs. The original goal, which was to help adults gain appropriate placement and other needed supports for expeditious enhancement and recognition of their academic credentials, seems more important than ever.

While most of the functions that he advocated earlier have in some way begun to be served, Valley recently claimed (in press) that we still have much unfinished business. We need to increase the geographic accessibility of learning opportunities, enhance the usefulness and use of currently available services, monitor in systematic ways demographic, cultural, and social changes in the nation, and determine how these changes will require new educational services. Implied in Valley's discussion are two additional tasks that I would also emphasize: the need to develop a much larger cadre of expert assessors qualified to provide psychometrically-sound, individualized assessments of learning wherever achieved and, lacking the National University that Valley and Arbolino

envisaged, the need to create a fair and efficient nationwide system for recording and legitimating the knowledge required and achieved by adults. (The latter could be done either by readily transferring credits recognized by one accredited institution to another or by creating a single authoritative source for receiving and retrieving this information.) In short, we need a coherent, serviceable credentialing system suitable to the needs of adult learners. If such a system were put into place, informal learning could then be formally recognized and could complement the outcomes of formal education, both in the corporation and in the collegiate setting.

The know-how and techniques needed to address much of Valley's unfinished business have been well worked out. However, in spite of the best efforts of CAEL and other institutions (e.g. the Adult Learner Services Division of the American Council on Education, the College Board, and numerous colleges and universities that share these concerns), Valley's conditions for efficient adult learning continue to be inadequately provided.

Our society faces many demands on its monetary and human resources during this new decade. It would be intolerable to waste those resources by failing to assess and recognize appropriate learning by adults and by failing to enable them to achieve the scope and depth of learning that is needed. It is the duty of adults to keep learning. CAEL's recent experiences show us how to help them carry out that duty. Now, it is the education establishment, including corporate human resource developers, that should expand this effort nationwide.

It should not be forgotten that the workers participating in the CAEL-sponsored employee growth and development programs also made their own sacrifices in order to contribute to those ventures. They learned during their nonwork time, either taking it from civic or family or personal uses or from time they might have given to informal studies. They relinquished some other fringe benefits they might have gained in the bargaining process if they had not valued so highly these opportunities for formal learning. They also made what for them was an unusual effort in the discipline of learning. Without these contributions, no program of financial support and/or institutional improvements would have made such a difference.

A major motivating factor may have been the workers' desire for personal growth, their drive toward fulfilling their potential. While this factor will contribute to the efficacy of learning, it also relates to what professors often hold dearest — the liberal education of their students. Adults are often thought to be less interested in such learning, but I construe their interests as governed by Maslow's analysis of needs: Once a living is assured, other pursuits, such as liberal studies, seem more worthwhile. More mature students are readier for the culminating outcome of education than are younger students. Indeed, few late adolescents are capable of surmounting what Perry (1970) calls the level of "multiplicity" in their intellectual orientation or what Belenky *et al.* (1987) call the "subjectivity stage," no matter how effective the interventions of educators. But older students are often already beyond those levels in their sophistication and need to be nurtured and stimulated to even further development.

Given learners ready to learn and educators ready to teach, what are the special demands upon administrators? What marks a successful manager of an educational enterprise for adults? Increasing enrollments, rising income, net new reserves or profits, ever more prestigious faculty, high satisfaction scores on student participation surveys — these are the typical indicators. But these accomplishments do not necessarily mean that the purposes of students and educators are being achieved or social goals served. They do not mean that more citizens are able to make better familial, economic, civic, and political decisions. They do not mean that the work force has become more productive and competitive. Surely these latter outcomes ought to be the true measure of success in adult learning.

Yet, how many successful managers of adult-learning programs conduct or require reliable studies of the learning outcomes of their educational offerings? The question is not about student satisfaction, the number of course completions, or the number of customized training sequences that were provided for corporations. The question is, simply: What do the educators and education administrators know about what the learners in their programs actually learn through those offerings?

Is the question unfair? Is it too expensive to find out? Do educators balk at gathering the data? Do they not know how to do the assessment? There are many excuses available. But if an educational

administrator cannot work through and around these obstacles to develop good information on the extent to which programs are facilitating learning, that administrator is failing in a central management responsibility. After all, if the bottom line is adult learning, how can it be maximized if the administrator does not know what it is? It is not often that this responsibility is well met, nor is it easy to meet. It is, however, possible. At this time of enormous need for efficient adult learning, it is hard to identify a more urgent duty or one more essential to the profession's deserving support and respect.

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Robert Tolsma

Information Technology and Worklife: Shoshana Zuboff's *In the Age of the Smart Machine*

How has technology altered the workplace? How has technology affected the labor, skill, and knowledge of the work force? What changes have occurred in the relationship between managers and workers? These are the standard questions that are asked in research on the impact of technological advancement. In this study of extraordinary insight and originality, Zuboff (1988) suggests that when these questions are asked about the technology of the information revolution, the answers are fundamentally different from what we might have been led to expect in studies of other technologies in our industrial past. The central theme of Zuboff's book is the potential of information technology to affect worklife in ways essentially different from the technologies of the industrial revolution.

Zuboff arrived at her conclusions after researching the effect of the introduction of information technology on worklife at eight different organizations. Her case study method and phenomenological approach were well suited to her subject. She was able to make her observations when the experience of using the new technologies was still fresh. Changes in worklife had not yet acquired a naturalness or givenness that no longer expected explanation, nor were the explanations of change so rationalized into an ideology that they hid the real, felt experiences of the working person.

Discovering the structure and texture of this immediate lived and felt experience of work in an information-enriched technological environment was Zuboff's central objective. She found the traditional language used to analyze worklife in such environments inadequate for

these purposes. Much of her success and the originality of her work lies in her concentrated effort to develop language, concepts, and metaphors that comprise a new conceptual map for scholars and managers to use to better understand the structure of the workers' felt experience and so analyze and direct the evolution of other work environments.

The most important conceptual tool she developed to map her data is the distinction she draws between technology that automates and technology that informates. In addition to automating tasks, she says, information technology gives a voice to those automated activities that "symbolically renders events, objects, and processes so that they become visible, knowable, and sharable in a new way (p. 9)." For example, a barcode scanner in a grocery store not only automates the work of the cashier, it creates a stream of information about the sales activity of the store, its inventory, and the work of the individual cashiers, making the activity of the whole store-wide system more transparent. The new information, insight, and perspectives this technology offers — this informating capacity of new technology — is the central quality that distinguishes it from its predecessors; how this information can change the nature of work and the way power and authority are gained and exercised in the workplace is the story of Zuboff's book.

Zuboff divides her analysis into three parts. The first describes changes in the ways knowledge is acquired and demonstrated in an environment created by information technology. After beginning with an account of the history of blue collar, clerical, and managerial workers, Zuboff proceeds to explain the way an informated work environment may alter the trajectory of that history in the future. Harry Braverman (1974) believed the skill embodied in and exercised by the worker would ultimately be transferred into machinery. Robert Blauner (1964) suggested that workers of the future would still need to use experience-based, concrete skills (as opposed to conceptual ones) to monitor operations, even when they would no longer physically perform their craft. In both scenarios, the skills which workers will exercise, and for which they will be valued, are not skills that will equip them with the conceptual understanding required to collaborate in the management of their work environment. By contrast, Zuboff suggests that in an informated environment, the historical connection between the reduction of physical effort and the reduction of skill might be broken. In such an environment, physical effort is reduced,

but concurrently, a pressing need for reskilling the work force emerges as the knowledge requirements for effective job performance are transformed at all levels of the hierarchy. Reliance upon implicit, experience-based knowledge is insufficient, she argues, and abstract thinking and inferential and procedural reasoning are required to take advantage of the information that technology provides about the work environment.

The knowledge required to benefit from information technology, however, will not be acquired by chance. Zuboff says that the corporate world, with its hierarchical and functional divisions, not only impedes the development of such knowledge among its work force, but is resistant to the kind of organizational change that would be required to make it possible. In the second part of her study, then, Zuboff explores the foundations of this corporate resistance and discovers it to reside in the challenges to traditional patterns of authority that come with the transition to an informated environment.

The authority structure of the workplace has historically been supported by the belief that persons at different levels in an organizational hierarchy exercise varying levels and types of knowledge in the performance of their work. Reinforced by supportive institutional practices and by social and class structures which replicate these hierarchical relationships, managerial claims to distinctive knowledge erect barriers to access and influence which appear natural and provide the rationale for industrial organization. While Zuboff notes that industrial authority patterns are already being undermined by social developments, she contends that information technology has the capacity to break down the knowledge barriers that provide the intellectual support for those patterns.

Why is this so? First of all, exploitation of the full benefits of information technology will only be realized if opportunities for the development and exercise of intellectual skills are available across the organization. As Zuboff quotes one worker, the question is, "Are we all going to be working for a smart machine, or will we have smart people around the machine (p. 245)?" Since the information technology available to one organization is often available to its competitors, the competitive difference between organizations will not be found in the technology they

have, but in the ability of their work force to extract knowledge from a wealth of information and use it for competitive advantage. In an informated environment, the enhancement and dissemination of knowledge throughout the workplace has just such a competitive advantage.

Zuboff also develops the concept of a "textualization process" to explain how information technology affects organizations and ultimately undermines the traditional authority patterns. Textualization is the process whereby "the surrounding life-world of the organization comes to be more comprehensively reflected in a dynamic, fluid electronic text (p. 172)." To the extent that information technology creates such a text and provides accessible, public, and communicable data for analysis and decision, its effects will be profound. Knowledge boundaries that segment organizations into mysterious spheres of activity are dismantled and the whole expanse of organizational activity is potentially open to view. To the degree that imperative control is based on privileged access to knowledge and information, shared access will diminish it. To the degree that information technology transforms implicit into explicit knowledge, those whose authority depended on the essentially opaque and ineffable quality of implicit knowledge will see their authority curtailed. The implicit knowledge that workers bequeathed to the machine will be made explicit to them through information technology, allowing them to recapture the meaning of their work and advance it in new ways. The explicit knowledge base of the organization, the custody of which executives historically delegate to middle management, is now in databases potentially available to executive and worker alike. In short, distinct managerial functions that had been compartmentalized during the course of industrialization can be signficantly reintegrated throughout the organization.

Zuboff uses the third section of her book to investigate corporate responses to these challenges. Because of the threat information technology poses to traditional patterns of authority, it often meets with great resistance. Where shared beliefs, values, and experiences of the workplace no longer cloak traditional authority with an air of legitimacy, one response to the corporate threat is to use information technology itself as a technique to safeguard authority and exert imperative control. Middle managers in particular, sensing ambiguity in their role and authority, prefer technologies that automate rather than informate, and are tempted to

control the use of technology to preserve exclusive knowledge within their own sphere of operation. Another strategy is to resort to the "panoptic" (surveillance) power of technology to exercise greater control over worklife and thus bolster the hierarchy. Such a tactic is ultimately dysfunctional, Zuboff says, because it undermines the authority it was intended to legitimize and fails to take real advantage of the informating capacity of the technology. Nonetheless, although the logic of an informated workplace calls for a redistribution of authority and the investment of authority within the workers themselves, the push of technology alone is not enough to guarantee that impediments to changes in the authority structure of the workplace will be overcome. Appropriate new structures can only develop with managed and intentional change, Zuboff argues, and that is why the question of how information technology will affect the workplace boils down to one of leadership.

Fortunately, Zuboff doesn't leave us with only that uncertain prospect to ponder. Instead, she concludes with a vision of a post-hierarchical, informated environment where organizations are primarily learning institutions and where different relations between workers represent ranges of responsibility and accountability rather than different levels of skill and knowledge.

Zuboff's approach is complex and subtle. She is always careful to offer her arguments within the context of controversies in the literature of work and the historical development of technologically mediated labor relationships, and she anticipates objections and qualifies her arguments with timely caveats. Scholarly but not pedantic, visionary but not doctrinaire, complex and yet lucid, Zuboff's study will change the way we think about learning technology, work and authority.

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Production Knowledge and Social Knowledge

In his classic analyses of the skills of production workers at the turn of the century, Frederick Taylor aimed at "rationalizing" the workplace through an exploration of what workers knew. Like other scientific managers who came in his wake, Taylor studied the production process in order to make it more efficient, less dependent on the judgement and skills of workers,and more "scientific," in Taylor's word.[1] Through the introduction of new production systems and technologies, scientific management relocated knowledge, first by making the workers' knowledge explicit and, second, by absorbing workers' skills into technological and organizational structures, making middle management the repository of skilled knowledge of the production process.

Since Taylor, a second group of scholars has examined his aims and his system from the point of view of the worker rather than the process of work. These scholars have traced the "deskilling" inherent in the above relocation, and have critiqued the rationalization of production as an act of expropriation. According to this view, best articulated by Harry Braverman, management's dual goals of profit and control have been maximized by shifting the locus of knowledge from the skilled worker to the manager. In times of organizational and technological change, the differing levels and types of knowledge made available to workers are explicitly turned against them as new technologies and industrial organization are introduced to buttress management's control.[2]

These two perspectives are, of course, two sides of a single coin. First, both the scientific managers and their critics focus on the workplace

as a source of *production* knowledge, that is, the knowledge and skills that come out of workers' participation in the production process. Second, both groups justifiably see the locus of knowledge as one aspect of a struggle for control, not only of the production process itself, but of the terms and conditions of employment. Their main difference, to paraphrase an old union song, is a question of whose side they are on.

In periods such as the current one, characterized by new technology and new corporate organization, examinations of production knowledge take on new meaning as specific groups of workers and trade unions lose power that has traditionally been theirs. Attention focuses again on the worker as victim, as loser in a war in which knowledge is power.[3] At the same time, the critiques of deskilling, while sympathetic to workers, fail to recognize the significance of a second kind of knowledge that also arises out of the workplace, namely, an understanding of *social relationships*. In addition to the skills needed for production, the workplace serves workers as a vital source of knowledge about the social relations of production: the relationship of workers to management, to other workers, and to the society as a whole.

This is important, for it is from the acquisition of social knowledge that workers derive much of the day-to-day power to determine their conditions of work. This second kind of knowledge is the knowledge workers gain not because of their job functions, but in spite of them, out of the very structure of information and power within the workplace itself. This social knowledge is potentially subversive because it undermines the legitimacy of power relationships, because it can be used to affect what are unequal and adversarial interactions, and because it allows individuals to perceive themselves as situated within a particular social and political context. To understand the relationship of workplace knowledge to power, we must understand the workplace as a source of both kinds of knowledge: not only of the development of discrete job skills or even the development of analytical and theoretical understanding, but of a complex, multifaceted series of informative interactions in which social and economic relationships become visible over time.

Let us take one example of this.

In the 1960s, a union steward on the cookie-production line in the Nabisco factory in Fairlawn, New Jersey, knew the number of cookies

produced each day. This steward could correlate the number of cookies produced with the number of people employed on various days and calculate what level of production and work effort corresponded to what number of cookies. When management used opportunities of layoff or illness to try to increase or maintain the same level of production with fewer people, the steward in cooperation with other employees in the department could slow production. Management soon got the message. When the supervisor inquired why production was down, the steward responded: "I don't know. Maybe you need to employ more people."

The power of the union steward in the cookie production line in the 1960s derived from a unity of production knowledge and social knowledge at a particular point in history, in which the technology and organization of production exposed workers to particular information that could then be used to their advantage. Management's dependence on them, to be sure, arose from their specific workplace skills and their ability to use those skills to control the pace of production. Yet the power of that steward and his or her co-workers was equally based on their understanding of their place within the industrial system, not only the rate of production and the number of employees, but also the place of the factory within the production and profit structure of the company. Thus, their ability to act was predicated on their understanding of particular structural and technological conditions. Nabisco's workers in the 1960s were part of a company that had no alternative source of production for this particular brand of cookies, and no alternative source of profit other than the production of food.

Moreover, and even more basically, the relative powers of the workers and company described here existed within a context of social relationships that stretched significantly beyond the shop floor. The power of industrial companies corresponded to their places within communities, states, and nations and to structural relations among politics, economics, communications, and social life. The monopolistic industrial corporations created the cities in their own image and attracted a population to them that formed, not only their work force, but their customers.

Yet the economic strength these workers gained through industrial unionism was made possible by these same workplace and community connections. The shop-floor power of stewards in the 1960s

represented and rested upon their place within a system of industrial production and industrial relations, as well as upon workplace skills and knowledge. But it rested even more profoundly upon the social practice and historical experiences of workers, which had enabled them to see their relationships to each other and act upon their common interests. In the generation since the 1930s, they had gained not only shop-floor representation, but a measure of control over production; not only the ability to file grievances, but the ability to negotiate national contracts which secured and expanded their rights; not only the right to negotiate, but a legal framework which allowed adjudication of their rights and interests; not only the ability to advance wages and benefits contractually, but also a strategy for legislative and administrative action through government at all levels. These rights and powers issue from workers' *social* knowledge.

The social knowledge upon which industrial unionism rested included a holistic view of workers' role in the production system and that system's dependence on them, not only as workers, but as citizens, consumers, neighbors, and tax payers. That understanding is captured in an often-told anecdote about a conversation between Henry Ford III and Walter Reuther during a walk through the assembly line at an auto plant. "Some day," said Ford, gesturing at the rows of workers, "these folks will all be replaced by robots." "Robots, eh?" came Reuther's now-famous reply. "How many automobiles do they buy?"

Those conditions, of course, have since changed dramatically. Since the 1960s, the vast structural changes that have accompanied economic globalization and technological innovation have done much to undermine the traditional relationships among companies, workers, unions, and local communities. Within a given factory, as the current studies of deskilling have shown, workers find their old job skills and shop floor controls displaced by new and higher technologies centered in computerized systems over which employees lack direct control. Within the larger economy, information technologies unite farflung structures and organizations, permitting global movements of capital investments, multiple sourcing, and production transfers that are even more destructive to the traditional venues of workers' power. Plant closings and lay-offs are only two symptoms of that changing relationship.

In the 1990s version of the Fairlawn factory, workers have lost the power based not only on production skills, but on the social and economic relationships of a generation ago. The management of Nabisco now has multiple locations for production and the availability of instantaneous transfer orders for production by technological means. Further, RJR Nabisco is now owned by investors who acquired the company as part of a hostile take-over and who are primarily interested in Nabisco's brand name. They are in a position to dispose of any or all parts of the company in paying off the debt that they acquired as part of the take-over of the company. Nabisco itself, let alone the production of these cookies, is only one part of a conglomerate.

For workers, this means that the knowledge which a generation ago might permit one to exercise a degree of control over one's production department and therefore one's working life may be unavailable or useless today. There is a good bit of rhetoric but little evidence as yet that new skills are developing at the workplace to replace the production knowledge workers have lost.[4] Yet if we focus on production relationships as a source of social knowledge, the situation is far less grim. New circumstances and new social relationships have, in the past, led to new kinds of social knowledge that raised new possibilities for workers' power even as they undermined the old.

Historically, the changes that diminished the production skills of individual groups of workers have, over time, brought new workers into relationship with each other and broadened the range over which they have been able to act in their own interests. The new alliances and relationships have been empowering, not destructive. A striking example of this in labor history, as we have just seen above, was the rise of industrial unionism out of the deskilling of craft production. As a form of working-class advocacy, this industry-wide solidarity between workers in differing job titles went far beyond the ability of craft unionism to struggle for workers' rights politically or socially or its willingness to represent workers as a whole.

Thus, there are grounds for hope if we look beyond the deskilling of the individual group of workers to the broadening of perspective and the democratization of knowledge. As technology expropriates the knowledge of individual groups of workers, it brings larger groups of workers into

relationship and renders visible social relationships that were hidden or nonexistent previously.

Seen in this way, the archetypal "machine" is not the assembly line, but the printing press, which broke the power of the medieval guilds by breaking their monopoly on knowledge. The new access to information that followed in Gutenberg's wake allowed for the rise of capitalism itself, for the expropriation of specialized knowledge and the destruction of a centuries-old way of life passed on from master to apprentice in a time-honored hierarchy of skill. Yet in democratizing access to social knowledge, it made human beings more connected, more alike, and rendered the human community newly visible to itself. The printing press made possible not only capitalism, but also industrial unionism.

The cookie worker at a Nabisco plant in the 1990s works as part of a work force reduced at least by half since the 1960s. High technology has lowered both workers' skills and workers' direct control over a production process structured to maximize profits and reduce costs. Their wages are now determined more by labor-market supply and demand than the union contract. Benefits once taken for granted, such as health insurance, are now threatened by declining services and out-of-pocket costs. Labor relations are characterized by worker-participation structures that aim more at increasing the quality and profitability of the product than at improving the conditions and compensation levels of the workers.

All of these changes, taken together, represent a decrease in workers' power when measured against the specific standards of the steward of a by-gone era. Yet, if the power of the steward of the 1960s ultimately rested upon the identity of interests and similarity of conditions among the workers within that system of production, then the power of the workers in the 1990s is potentially immense. Workers now find themselves connected within power relationships stretching well beyond the shop floor and even beyond their industries and communities into the global economy. To the extent, therefore, that they understand these new connections and act to secure their lives and necessities within that environment, their knowledge and power will correspond to relationships that are ever larger in scope.

Workers find their skills vulnerable today because they now produce within a global production system in which their counterparts within the same company may be in other countries rather than simply other cities or plants. Workers' wages can no longer be secured as easily by contract because their ability to labor is now a global commodity. Health care and other government entitlements compete for funding at a time of serious cuts in social spending. Declining tax revenues from transnational corporations further complicate the problems of government borrowing within international capital markets. Corporate investment strategies and plant relocations devastate whole communities and leave individuals, neighborhoods, and even nations outside of economic life and development. Resistance to taxes and government regulations on the part of transnational corporations, their movements of capital in international markets, and their production and investment decisions can decide the fate of communities and nations.

Addressing these problems is not primarily a matter of conceiving how workers might join together in some abstract and future global organization. It is rather understanding how and in what ways workers are newly interconnected within the present systems of production. If the shop-floor power of the steward of the 1960s evolved out of the need to control production and secure employment, the powers of workers generally evolved through a particular interaction of unions, corporations, and government — politics and economics, public and private decision making — within a particular social and industrial system.

The central and connecting link of all of this continues to be the relationship between corporations and national governments. It is these governments whose regulations or lack of them make possible transnational corporate practices and movements. And it is only through these governments that workers can define and secure their rights to workplace skills and participation, to unions and collective bargaining, and to stable and balanced economic development. The relative decline of workers' abilities to secure the necessities of life through contract bargaining has repoliticized the struggle for those necessities: job security, health care, education, equality.

Using government as the means to those ends and the kinds of mass democratic movements within this and other nations necessary to

implement such legislation depend, of course, on workers' recognition of their common connections and needs. But, unlike an earlier period dominated by monopolistic industrial corporations, national governments rather than the individual corporations themselves are currently at the center of economic decision making. Those governments will thus increasingly become the centers of activity and struggle and the means by which workers define and realize their rights and powers within this new system of production.

Whatever the technology and corporate structure, knowledge remains a social product, created out of the activities and relationships of which human beings are a part. Because the new relationships of production represent new relationships among human beings, they cannot help but create new forms of knowledge that can be used to further the interests of workers as well as those of management. The social knowledge that grew out of industrialization led to the organizing of workers by nations and industries, to the struggle for national labor law, and to the uniting of disparate groups of workers into collectivity. New conditions will reveal new social knowledge and new ways in which that knowledge can be used to further human goals.

Notes and References

1. For an understanding of Taylorism and its influence on the production process, see the work of David Nelson, including *Managers and Workers: Origins of the New Factory System in the US, 1880-1920* (Madison: University of Wisconsin Press, 1975) and *Frederick W. Taylor and the Rise of Scientific Management* (Madison: University of Wisconsin Press, 1980). A good summary of the influence of scientific management is contained in Chapter 1 of Zuboff's *In the Age of the Smart Machine*, reviewed by Robert Tolsma in this issue of *Golden Hill*.

2. See Harry Braverman, *Labor and Monopoly Capital* (New York: Monthly Review Press, 1974). For another study of this kind, see David Noble, *Forces of Production: A Social History of Industrial Automation* (New York: Oxford University Press, 1986).

3. See, for example, Robert Howard, *Brave New Workplace* (New York: Viking, 1985) and Harley Shaiken, *Work Transformed: Automation and Labor in the Computer Age* (New York: Holt, Rinehart and Winston, 1985).

4. Shoshana Zuboff is one of a number of analysts from the perspective of enlightened management who see the possibilities for a higher level of production knowledge owing to computerization. We take issue with her in two regards. First, in our view she has seriously underestimated the kinds of intellectual skills required of workers in traditional skilled industries. Second, she fails to address the contradictions inherent in her projection of the workplace of the future, in which power and knowledge are shared democratically within a system of private ownership and hierarchical levels of compensation.

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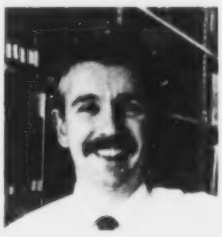
Alan Mandell

Critical Thinking: Ideals and Tensions A Conversation with Stephen Brookfield

Over the last six years, Stephen Brookfield has become one of the most significant voices in the area of adult education. His numerous writings have not only deepened discussion of adult learning theory, but have made us more aware of the philosophical and political dimensions of our practices as educators. He is the author of many books, notably Understanding and Facilitating Adult Learning *(1986) and* Developing Critical Thinkers *(1987). We met on 2 March 90 at Columbia University Teacher's College where Brookfield is Professor of Adult and Continuing Education and Associate Director of the Center for Adult Education.*



Stephen Brookfield

Alan Mandell: I'd like to start by asking you something about your own background and interest in the world of adult learning. You are certainly a terrifically prolific writer and a very important contributor to this field. Was your interest linked to your own learning, your own experience?

Stephen Brookfield: I've been "prolific" since about 1984, I think, when my first book came out. But that's only the last third of my career as an educator. I actually started teaching in 1970, in order to support research I was doing on popular culture. In the daytime I was teaching fifteen-, sixteen-year olds — I was 21; and in the evening I was teaching adults. I soon

realized that when I was walking into the day classes, my stomach would physically be in knots. And when I was walking into a class of adults, I would be able to eat a large meal beforehand without any problem! So obviously my body was telling me something about the difference between adolescents and adults, or about the difference between the contexts in which one works. I found myself enjoying adult education so much I decided in 1974 to work full time in the field.

AM: So you imagined being a professor in a college situation where you could primarily work with adult students?

SB: No. Actually, for about the first ten years, I vowed that I would never be a professor; I would never teach in a university. Much of this reaction was a result of my own experience in graduate school that had been insulting to me. I felt that my professors were actually very *un*professional. They didn't really have much connection with the world — the real world of our education as it was practiced in Britain at the time. They were in a privileged enclave. All the typical, stereotypical ideas that you have about university teacher-education departments were true! I decided that I would never do this, and I would never give anybody advice until I had ten years of teaching, at least ten years.

AM: Did you follow through with your commitment?

SB: In 1980 (which was my tenth anniversary as a teacher!) I was at the point of being fired from the college in England in which I was teaching. And out of the blue, I got an invitation to go to Vancouver for a year to be a visiting professor of adult education. I decided to go. In many ways I just found I came home in terms of my work. I thought that this was really for me.

AM: Are you thinking about a comfort that came from the students themselves or from a new kind of discussion you could engage in regarding education?

SB: I think it was the nature of the activities which I was involved with, which had to do with thinking in an analytical and reflective way about the practice of teaching and learning. That had always been a luxury for me, and something that I had done privately and in my own doctoral study. But it had

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always felt like something of a truly isolated luxury. For ten years I had worked under the constant pressure of having enough paying bodies in to justify my salary. I felt constantly underappreciated, though I did learn a lot of rules about political survival as a teacher in nontraditional community-development programs. So to get paid for doing that analytical reflection was just incredible, wonderful.

AM: When you began your own explorations of adult education in the mid-seventies, what theorists and practitioners were significant to you?

SB: I can remember very clearly two people in particular striking me from very different orientations. One was Alan Tough and the other was Paulo Freire. The first monograph that Tough did about learning how to teach, which came out in '67, I read in '75. And reading that monograph actually led me to formulate my dissertation and my research, which concerned self-taught experts drawn from working class backgrounds in England.

The other is a memory of a course in the philosophy of adult education I took in which the professor spent each week pointing out all the ambiguities and contradictions in Freire's thought, while the students would be arguing for the professor to take Freire seriously. And so we fought a lot. But I remember that class as the best class I had ever had, because I felt as though the person who was in the leadership role had a clearly and well thought-out rationale as to *why* he was doing what he was doing. He didn't attempt to parlay popularity and favor with us, as I feel some adult educators do. I respected this professor for his way of respecting the students' divergent positions and didn't feel as though I was being insulted by *his* divergence. I felt rather more insulted by people who felt they were duty bound to agree with us irrespective of what idiocy we came up with.

AM: In the case of the Freire example, it seems as if the context of the learning was at least as significant as Freire's own ideas. He probably would find this quite appealing and consistent with his orientation!

SB: Yes. It was also interesting because I came from the sixties, probably like you have, where the idea of student evaluations of teaching was of paramount importance. I was a supporter of those ideas. So it has also been interesting for me over the years to change my ideas about that and to

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realize that sometimes evaluations of teaching which express student dissatisfaction may be the result of teachers doing things which are in fact extremely valuable and in students' long term interests.

AM: This notion reminds me of an idea from your *Understanding and Facilitating Adult Learning* that I have thought to be particularly important. It has to do with the ambiguities regarding the meaning and assumptions about "self-directedness." On the one hand, you suggest that self-direction is spoken of as the aim in much adult-learning theory. And, on the other hand, there is what you call the "empirical indicator" that shows that many adults are not particularly self-directed at all. In a sense, much of adult-education theory could be limited by the idealization of adult learners.

SB: Absolutely. I've gone a long way further, I hope, in my thinking on this since that book came out in 1986, but that distinction between self-direction as empirical reality and self-direction as a philosophical idea to guide practice is one that I still think holds true. In fact, I have become even more convinced that self-direction is less and less the empirical reality that many adult educators claim that it is.

Certainly, self-direction in a political sense is not a reality at all in most countries across the world, although events in Eastern Europe over the last few months will speak against that. In fact, within my world of educational practice, self-direction is not at all something that I see students naturally taking to with great whoops of glee! Many students are confused and somewhat intimidated by my attempts to retreat from a formally defined leadership role when I have tried to do that.

AM: Returning to a more biographical note, do you see a connection here with your own way of learning?

SB: I've realized and keep on realizing that I have a naturally self-directed style in my own learning, which has been *dysfunctional* for me at various points in my life both in terms of my intimate relationships and in terms of my psycho-motor learning skills. For example, only just last year I've learned to drive; only two years ago I've learned to swim; I still can't ski, and in those three psycho-motor domains, I have refused instruction very very stubbornly for fifteen to twenty years. I have learned to break through in the two areas where I have been able to say: "Now, this is bloody stupid. You

really have to take some expert instruction here." I hope the more recent critical-thinking book explores this more in terms of intimate relationships, where I do think self-direction runs the risk of confining you as a learner to familiar paradigms. People often stay within confortable frameworks that can become self-defeating ways of relating — or learning.

AM: This point moves me to one of the really intriguing questions in the *Developing Critical Thinkers* book, and it concerns this distinction between "felt" and "real" need. In some way, the strength of any kind of critical theory has to be built on this distinction; but it is a distinction that raises enormous problems. In your text, you give three examples: the insecure lover, the drug addict, and the domineering parent. But in each case, I found the distinction perhaps too easily drawn. For example, in the case of the addict, it seems too simple to say something like: 'Here's an example of life lost and potential not being fulfilled.' Or, in the case of the insecure lover, one can possibly too easily point to the difference between dependence and independence.

I wondered if you were really trying to get at something more systematic based on assumptions that you could more clearly articulate.

SB: Those examples that I chose were "easy" ones, in that what I would define as "real" needs — the person to come off drugs, the lover to be more self-confident, the parent to be less domineering — would probably be conceptually agreed upon as desired states of being by most people. So in this sense you are right, and it is good to have these examples challenged. But for me, the presupposition that underlies all discussion of needs is that essentially every judgement is a *value* judgement. My own judgement of a real need can mask itself as an empirically objective, provable judgement that any person in his/her right mind would also come to, rather than the subjectively designate preference that it truly is. Thus, what I as an educator would designate as a student's "real" needs are ultimately a subjective preference that I have indicated.

AM: For me, this was surely one of the main arguments of *Understanding*: that we are never presuppositionless, that we are always dealing within a value-laden domain, but that we can become more aware of these value-filled contexts and that this is one of our main tasks as educators. But isn't there still an important distinction between this acknowledgement and

awareness of the subjective, and the naming of a truly critical and thus more normative dimension?

SB: There is a tension here, but the tension seems to me a given. I probably don't worry about it as much as I used to. I think that what happens is that the subjective becomes confirmed and externalized as the objective. In other words, you reach the point of what Perry talks about in his description of "informed commitment." Now this sounds as though I'm claiming I'm a "stage nine" in Perry's model, which is a very arrogant thing to say (even assuming his model is a valid one!). I don't want to claim that for myself. But I do think there is a state all educators have to come to, or all people have to come to, but particularly anyone who presumes to see him or herself as teaching someone else. It is in saying something like: 'Yes, values and definitions of needs are contested in an arena in which many people make different claims for the validity of their different positions; and yes, therefore any claim to be objective can be seen as ultimately subjective in a relativistic sense. But nonetheless, I as an educator feel that I've thought and worked and practiced through this process enough to the point where I can say that what I believe is *subjectively* important is the same as what I believe is *objectively* important. Therefore, I think that the real needs of learners or of human beings are to obtain the following desirable states of being and I can articulate what they are.'

AM: And if they are questioned? Upon what would you base your explanation?

SB: First, let me say this. I would always be open to someone challenging me, and I would always be open to changing my ideas. I also hope that I would always be able to articulate thoughtful rationales behind why I've come to the point of making those claims. I wouldn't just make the claims and say it's because I think it's good for you. I would have to be able to articulate why.

I've just finished another manuscript on teaching, which is a much more personal one than the two books we have been talking about. Right at the beginning I discuss the absolute survival necessity for all educators to develop a critical rationale — the why they do what they do for why they're going where they're going. Psychologically, it is very important to be able to articulate to yourself as a mechanism of personal survival. And

politically, it is important within your institution to be able to articulate why what you are doing is important. So, this whole idea of a thoughtful rationale which you feel unequivocally and one-hundred percent committed to and that allows you not to be literally crippled with doubt is extremely important. But again, you must always be open to revising that rationale. Yes, there's no doubt an interesting point of tension at which you have an unequivocal commitment to that rationale, balanced by a realization that you may substantially refine this in the light of further experience. I think that's the very productive point of tension that all educators should be involved with.

AM: This whole problem that we have been discussing also concerns the very "position" of the teacher. What I am thinking about is something like what might be thought of as the limits of questioning. Is there a point when the questioning of the teacher — the digging — goes beyond the bounds of what it should be? For example, you refer to "risk taking" in your discussion of critical thinking, but a risk taking that should not "frustrate." Perhaps I'm once again getting back to my question of making a distinction between where one begins and what is possible; and between the student and the teacher.

SB: I think there are several points to this kind of dialectical tension or however you might characterize it. On the one hand, I just feel that there is a strong strand in writing about critical thinking which is almost evangelical in nature and tends not to follow through the ethical consequences of the teacher's actions. I am thinking about an example of telling people who are working in extremely repressive or oppressive institutions that all you need to do is to become a critical thinker and you can transform these structures. This stance is both naive and dangerous. Anybody who is involved in teaching critical thinking has an ethical duty at the same time they're talking about its benefits to point out the consequences that critical thinking can have for its proponents. And here I am not only talking about being sacked or denied promotion by some organizational leader, but about being murdered. This is a tension again between being optimistic in the sense of helping people to develop their own sense of agency balanced with a realistic appraisal of the dangers of the specific context.

AM: I had wondered, in fact, if there was a kind of abiding optimism in your thinking about the possibilities of change — for me, a kind of problematic

idealism. For instance, in your discussion about the workplace in *Developing Critical Thinkers* you seem to assume that the emergence of critical thinking was not only connected to a new sense of self-directedness among the workers, but also to the democratization of the workplace and even its growing levels of productivity. Thus, the results seem to smoothly develop rather than produce clashes, exacerbate tensions, and even reduce productivity.

SB: I think that's very valid. Since writing the book I've given more attention to the social and political inhibitors that I may have neglected there. It's also interesting for me to hear this criticism because I have come to realize that what I did with that book was almost like a Victorian pamphleteering exercise. I was trying to argue within my own field for the importance of critical thinking because I feel that critical thinking as an activity has been co-opted by a couple of different sectors. One group of people sees critical thinking as something that is done in undergraduate courses with eighteen to twenty-two year olds. It doesn't really have much to do with the reality of daily life. Another group represented by theorists like Henry Giroux and Freire himself, who are influenced by neo-Marxism, have, I think, become extremely exclusionary to a great mass of people by the language they use and the interpretive framework they depend upon. So what I wanted to do in that book was to say that critical thinking as an activity is an enormously powerful and important element in the daily realities of adult life. I think my enthusiasm to convey that led me to put an overly rosy sheen on many of the claims that I made for it.

AM: Can we go back to Giroux, and especially to Freire, whom you have now mentioned on a few occasions? You seem to be suggesting that you see a real difference between your notion of critical and his. Can you explain this more fully?

SB: Freire's work is consistently stimulating to me. His recent book with Ira Shor, *A Pedagogy for Liberation*, is a wonderful book because it deals with precisely this point about the political structure which inhibits critical thinking. That book helped me quite a bit. And yet, I don't see myself as a Freirian. I think that as soon as you define yourself publicly as a Freirian or a critical theorist or as a "resistance" theorist you're locked into a specific interpretive framework. I do find Freire's framework one of the most accurate ones around, but I also feel that as an educator it would be a big

mistake to be perceived as only working within one mode of thought or practice. As I mentioned earlier, such a decision is limiting and would exclude many practicing adult educators who *don't* see themselves in that framework. So what I try to do is to draw upon the most valuable elements of Freire's work, and to present them in a more accessible way without the set of code words that only announce someone's membership in that framework of interpretation.

AM: So, to some extent it is the language itself that you are calling into question?

SB: I really believe that the fundamental duty of an educator is to connect with people, and for me to use that jargon and to place myself in that framework very centrally would mean that I would exclude the possibility of connecting with the kinds of people I sincerely want to connect with. Consequently, I get criticized from a more right-wing perspective, which I indeed anticipate and would be worried about if I wasn't! But I also get criticized from a left-wing perspective for not being politically aware enough, for not paying attention to the kinds of oppressive structures that you mentioned earlier, and for trying to extract elements of that Freirian analysis out of its context and using it for my own purposes. And that criticism constantly worries me. I am always searching and checking with myself to see why I'm saying what I'm saying. And usually I think I can defend it and make a case for why I'm doing what I'm doing and the way I'm doing it.

AM: It seems to me that one of the main differences between Freire's discussion of critical thinking and your own is that when he uses a phrase like "irrational, illogical, mythical, magical consciousness" he presupposes that he knows what that is. That is, he has developed a true hierarchy of consciousness that has a clear normative dimension. You don't seem to do that; or at least the normative dimension is less systematically explicit. Freire has no trouble talking about "magical consciousness" and assuming he knows what "true consciousness" is. I don't sense that you are presupposing what "true consciousness" might be.

SB: That pinpoints exactly how I feel. I think one of my drawbacks and perhaps one of my advantages — depending upon how you look at it — is that I tend to shy away from making those explicit normative judgements.

The appeal of Freire's writing is a kind of unequivocal certainty. But as I suggested before, there's something about such certainty which contradicts how I see the spirit of critical thinking, which is that one is always open to alternative voices and to formulating new positions.

Now Freire himself *has* reformulated some of his positions — I don't want to be unfair to him about that. But I know some people who come from that perspective who are so convinced of the rightness of their belief that they would never even consider criticism from sources they saw as ideologically unsound. As a teacher of critical thinking you have to model the kind of critical inquiry that you want your student to learn. You have to show it in your own practice. So to have a sense of definitive commitment to a particular political interpretation or vision of society which excludes any further refinement or fundamental questioning contradicts what critical thinking is all about.

AM: Perhaps another dimension of this tension concerns the development of critical consciousness among our students, and the risk-taking and critical thinking among ourselves. It seems to be easier to talk about the former than the latter.

SB: This is something I think about often, and it does go back to my criticism of those who presume that they have *the* line of insight into truth; that they are the critically sophisticated individuals who will initiate the *un*critical mass into this critically informed way of looking at the world. To repeat something I just mentioned, the teachers of critical thinking must constantly role model the process themselves. That is the most valuable instructional thing you can do.

So, the first faculty development in critical thinking that anybody should do is to engage in reflective analysis of one's own assumptions. If I was mounting a faculty development effort, the first thing I would do would be to say: 'Let's spend the first part of this exercise trying to make explicit some of the assumptions that we have about our own practice as teachers and about how we see what the appropriate roles of learners are or what assumptions we make about the learning process itself.' I think that might be quite frustrating to many teachers, who might respond by explaining that they already do all of this reflective stuff and only want new learning techniques and workbook exercises in critical thinking. How you

respond to this is difficult, but I'm absolutely convinced that finding ways to encourage critical reflection among ourselves is what you should do.

AM: What strikes me about what you have been saying is that if one were to make the simple distinction between the forms of learning and its content, you are more interested in the form. But doesn't this orientation cut you off from much of the current educational debate which is much more content driven?

SB: I did enter the dialogue in a critique of Hirsch's work that appeared in the *Chronicle*. The theme was that Hirsch's work was a cocktail-party view of higher education that essentially defines a good student as one who is adept at name-dropping items off his lists. The argument that I would want to make is that adulthood, as a condition of life, is one characterized by ambiguity, contradiction, and dilemma. As a true survival mechanism you need a way to reach through and come to judgements about the dilemmas and ambiguities that you face. A way of thinking that I would define as critical is one which will help you tolerate ambiguity and not let contradictions paralyze you. So, to me, the emphasis on the process of critical thinking is what I've chosen to focus on almost exclusively. I tried to put those processes into different real-life contexts like media, relationships, politics, the workplace and so on. But yes, the little piece of the world that I'm trying to pioneer has to do with the process of critical thinking; it's not debates about content.

AM: So your focus would really be on the very meaning of being an adult?

SB: Yes. I would argue that a focus on content leaves you ill-equipped to deal with the state of adulthood, which is the time when so many of the fixed givens that we don't critically assimilate are thrown into confusion by the actual events of our own lives. If you don't have a way of thinking about what's happening to you and a way to analyze it and make some sense of it, then you're psychologically paralyzed. Again, there is some danger about being overly optimistic about the claims of critical thinking. But if you don't have at least some minimal way of thinking critically about your life, then you don't have anything to maintain some sense of center and stability. "The center cannot hold," as Yeats says.

AM: The association I make here is with the critique of Habermas's model of emancipation that some analysts have claimed is overly rationalistic and misses the real motivations in people's thinking and acting.

SB: I do draw on Habermas' line of analysis about critical thinking indirectly through Jack Mezirow's works. Mezirow basically places himself pretty squarely as an interpreter of Habermas within an adult-education context. I have been strongly influenced by Mezirow, but consistent with thoughts that I expressed earlier, I don't want to be seen as solely working in that tradition. I'm very much aware of the criticism you refer to here, and of the problem of *too* much reliance on rationality. No doubt emotion overpowers reason the great majority of times in our lives, and I surely know that crucial decisions that I make as a person are at their root instinctual ones. I do a great deal of rationalizing about them afterwords. Yes, sometimes reason and emotion cohere very nicely, but many times I will make decisions just because they feel right, and the indicators that I could give for something "feeling right" would be interpreted by someone else as very irrational! So I'm very aware of this whole criticism, and it's very very provocative for me. I'm very interested in how I will deal with the problem over the next ten years.

AM: As a way of closing, I wanted to get back to a topic that we spoke about at the opening of this conversation, and it really has to do with changes in adult education itself. It's my sense that we have gone from truly outsider-work to something that many people and institutions are talking about, if not doing. Even as you described it earlier, your own career seems to parallel this process. I wondered if you see any ambiguity in this growth, in this moving into the mainstream?

SB: Well, one of the things which has emerged within the small circle in which I move is the whole question of the professionalization of the field, and whether we have become accepted as a mainstream legitimate mode of education rather than a kind of marginalized recreational activity. And this even moves to the question of whether we should be staffed by people who are professionally certified as "adult educators."

The latter is a big, big debate, and one that I haven't made my mind up about. I've seen so many examples of malpractice that the appeal of having some quality control is strong for me, but there's something in me

which is also a bit repelled by the need to get credentialed for everything. Certainly when I think of people I would regard as heroes, like Eduard Lindeman and Myles Horton, both would be the *last* people to bother about getting credentials as adult educators. This is something that I am sure will be a major question over the next few years.

Another thing that I think has moved to a high profile is the whole nature of mandatory adult education: the element of compulsion. Can we legitimately say, for example, that something is adult education if it's absolutely required? When I identified the key principles of adult learning a number of years ago, I think the first I named was that attendance is voluntary. I'm not so sure that I believe that any more, although I also know that I'm out of step with many of my colleagues with whom I've had long and heated arguments on just that question.

AM: This certainly returns us to the basic question of "becoming" critical thinkers and the role of the teacher and the institution in encouraging or even requiring such risks.

SB: Yes, and the nature of the mandate and the element of coercion involved raises many very sticky and ethical questions. For example, I sincerely believe that it is in people's own best interests in the long run to become more critical thinkers. Yet, it's an activity that people are extremely resistant to in terms of their own choice about what educational activities they would like to be involved in. Going through a critical-thinking process and externalizing and analyzing familiar assumptions, for example, would be the last thing they would want to do, because they would be so threatened by the prospect of finding out that many assumptions they've held to for so long might actually prove to be wrong. So they would never choose that for themselves; they would opt for something else. And yet, I think that as an educator you could make a very good case for requiring some exposure to this kind of thinking. Though again, I don't mean *forcing* anybody through a critical-thinking activity because I don't think ultimately you can do that.

At some basic point, it's rather like the philosophy of AA in that I wouldn't be adverse to saying, "I think that even if you don't want to do this, I very strongly want you at least to come and hear about what this involves and why I think it's important. If you choose not to go any further

with it, *all right*." I would shy away from requiring that initial attendance. But even here, some of my colleagues would think that my perspective was authoritarian and arrogant and overly domineering.

AM: Or, quite seriously, that we are returning to your earlier point about the subjective and objective becoming fused in an educator's mind.

SB: I have a very strong streak of arrogance! I might appear as a very relaxed and laid-back person, but students over the years whom I've dealt with will tell you that I have very definite ideas about what I think should happen that I won't compromise on. I'm quite happy to say, "All right, if you don't agree with this way of looking at what we should do, then I'm also quite happy if you go elsewhere and I won't insist that you do it; but as long as you stick with me, there are some things I cannot compromise on."

Helping people, from my point of view, move to a greater point of critical thoughtfulness is one of the things I won't compromise on with students. Even if students say this is not what they want to do, I would not give up my agenda. Indeed, this is the real tension between the learner-centered democratic strand of adult education , which very much came through in the *Understanding* book, and the more proleptic position: this is what I believe and ultimately at some level if you don't want to work with me on it then we should part company, which is starting to come out in the *Developing Critical Thinking* book and in more recent writings. That's an interesting and important point of tension and, I hope, growth for me. So maybe you can say I'm engaging in a giant self-delusional exercise which masquerades as a greater commitment to a rationale that I've already developed.

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Larry Abrams

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Nancy Anderson

The Faith Healer

I reckon it's been more than forty years since I last seen Lako Pratt. He and Eunice Ramsey laid out in her front yard just a shaking and we all stood around moved to silence and pounding hearts. I was home for the last time about fifteen years ago and my sister said they buried old Lako in a pine box down in one of the hollers and the first time a gully washer come up he floated. Just thinking about it makes me laugh out loud cause I know Lako got a kick outa that. Prob'ly made it happen.

I'm so worn out I can just barely shuffle to the toilet and back to bed. It's been over a month now since they put me in this hospital and ever day I seem to go down a little further. But my God I can still wipe my own ass! It ain't much but it keeps my head up when that bit of a nurse comes in to help me wash and to change the sheets. When she's done, that smooth bed always brings to mind the white sand we played in when I was a girl.

I can still feel my bare soles burning good as I'd stand in our clean yard, baked by a noon-day Carolina sun. There were flowers planted by the front step, but not a blade of grass or nothin' grew in the yard. Ever Sunday afternoon all us younguns picked up and plucked out anything that wasn't sad from the big square of land surrounding the house. Then we swept it 'til Daddy called out to quit. Our brooms were made of dogwood shoots, cut in the fall and dried in bunches through the winter.

There's only been one other chore I've done in my life that give me the same feeling I'd have when I looked back at that smooth white layer of yard, and that was doing diapers. Was no such thing as disposable diapers when I was having my babies. I washed each cotton square by hand, boiling 'em white if they needed it, and hung 'em out on the line to dry.

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Seeing that row of flapping white diapers always made me feel real good inside. Oh I've done more important things, but I'm talking about something special that happens when you do a dirty job outa love.

We never knew where Lako come from or where he went when he left. He just showed up about ever six months or so and stayed a night or two. How long he stayed depended on what needed doin'. One of my brothers would unhook the horse and take it down back for feed and water. After shaking hands and passing a few words, Daddy and Lako would generally walk on over to the smoke house for some corn. Unless there was a real pressing need Daddy waited 'til after supper to tell Lako about any troubles we had.

I only recollect clearly two miracles he did, but I heard of many. Old Lako Pratt was a faith healer and the best there was. He made his rounds in a part of the state that was a stronghold for witchcraft. From our house you had to ride ten or twelve miles in any direction to reach another white family, but there was a heap of colored folks all around. Some of them knew witchcraft and most all of them used it for one thing or another. Mama said it was voodoo brought over on the slave ships long before and that it was one power nobody could chain.

This one old colored woman that we knew was a witch, and she stayed on pretty good speaking terms with my family. Her name was Aunt Reenis, and they said her spells were the hardest to break. One day she come up to the house to get some eggs. Things were hard then; it was war time and my brothers were off on the sea. Mama told Aunt Reenis that we just didn't have any eggs to spare 'cause we had eat up most of the laying hens. Well, hell flew right into that old woman and she commenced to put a spell on Mama. Wasn't more than a week later when a knot the size of a egg come up on the back of Mama's leg where the knee bends, and she could hardly walk it hurt so bad. It got so she couldn't work, and Daddy sent out word for Lako. Still, it was almost two weeks before he come pullin' up. Daddy was out in the field so my sister, Cally, was telling Mama's trouble 'fore Lako's feet hit the ground.

Mama was in the big rocker on the porch with her bad leg propped up on a chunk of wood when Lako seen her. His arms shot out towards her like flung willow branches. His long fingers were stretched

wide apart and his eyes looked just like them holy rollers did at tent meeting. I was stupefied 'til I heard the bam of that piece of wood turning over on the porch. I looked to see Mama shaking, not just some, but like when a person has a fit. Lako didn't budge, just stood there sorta swayin' 'til Mama's shakin' started to slow down. She had wet on herself but didn't seem to notice. Daddy was up to the house by then, so Lako had him bring Mama off the porch into the yard. Then he went to his wagon and got a walking stick made outa root and drug it in the sand, makin' a deep circle around Mama. The next thing you know she was shaking again and Lako yelled at her not to leave the circle or step on the line. We was all scared to death 'cause we knew it was the devil Lako was fighting. Finally, Mama just dropped and Daddy carried her in the house to bed. Lako stayed overnight, but left the next morning after seeing Mama. I heard him tell Daddy the spell was broke and that Mama would be fit as a fiddle soon as her body rid itself of the poison. Well, that lump went down and it wasn't a week later Mama set out half a acre of tobacco all by herself.

I was lucky, 'cause the only time I ever needed him he was there. He'd been helping Daddy with something and they was sitting on the step smoking. I heard them say the clan had rode the night before and the sheriff had come all the way out from Florence to the four corners where there'd been a hanging. We weren't supposed to know nothing, but I knew my two oldest brothers, A.T. and Louis, were still in bed sleeping and here it was late into the day.

I was the only youngun in the yard, so when Daddy saw one of the goats loose over near the shack at the edge of the field he sent me running. I was quick and my feet hardly touched the ground. That's why I didn't feel nothing at first, it happened so fast. I was almost to the shack when the ball of my foot hit a rusty piece of cut-off pipe sticking not more than a inch or so up outa the ground. It peeled back that fleshy part between my toes and arch just like a orange. Speed carried me several more steps, packing sand and such into the raw meat. I was down and screaming with pain so bad I hardly saw or heard everybody come running. Blood was just a pouring, but Lako said that was good to clean the rust out. Daddy picked me up and took me to the back porch where Mama used water from the pump to wash the sand out. Then she folded the flap of skin back in place and tied it up with a piece of ticking. I thought I would die the pain was so bad. Then Lako came over and set down beside me. "Ginny," he said, "look at me."

I turned and looked up into those eyes I was sure could make the angels bow down. He spoke low and I could feel his breath on my face as he said, "Now honey, I'm going to put my hand on your foot and when I take it away the pain will be gone." And it was. The hurting was back by morning but with a touch the faith healer run it off again.

It ain't right that them doctors make so much noise. Sounds like a bunch of chattering monkeys coming into the ward. They make their way from bed to bed using high-falootin' words that don't mean much. I bore five children and was married for nearly fifty years to the same man. I even knew a few other men, but nothing in my life ever left me feeling as laid bare or shamed as the poking and prodding of these interns. To end up treated like just a side of meat is a pitiful thing.

They tell me I don't have long for this old world; can't nothing be done for me now. Lord, I'd give anything to have Lako Pratt come through that door and take the pain away. Just a hand's touch with some whispered words and I could go to sleep in peace. No chance in that happening. There ain't no more faith healers. I reckon it's just as well 'cause I ain't got no more faith.

Ramsey Brous

***Daniel Smith** received an Associate in Science degree with a concentration in interdisciplinary studies from Empire State College in the summer of 1990. Daniel owns a contracting firm on Long Island where he builds and renovates houses. He recently built his own dream house on the South Shore. Although his work has been in practical areas, at ESC he pursued the liberal arts with mentor Gary Goss in order to deepen his understanding of people and culture.*

Daniel Smith

The Vanished Porch

This past Sunday I visited friends who live in a seafront home. Three sides of their magnificent house are wrapped in a classically designed Victorian porch, with carved pillars and railings. Alone, on the porch at twilight, away from the party and blaring music, I sat and watched white breakers gently roll up the tranquil beach. My mind wandered back to another warm lazy summer evening and another porch some thirty-five years before.

I was sitting next to my grandfather, and we were gently rocking on his porch swing. Again, it was a Sunday, time of twilight evenings when, after dinner, people sat on their porches, rocking gently and talking gently. I remember my grandfather waving and calling to neighbors sitting on their porches. "Relax, Daniel," he would say, "this is the time of day to socialize and take it easy." I remember gazing up in the trees at sparrows flittering to tiny nests. Grandfather called out warm salutations to neighbors walking by and offered warm open greetings to friends and acquaintances and sometimes to strangers who, in passing, might pause.

I see my grandmother placing a large pitcher of iced lemonade on a mirrored hardwood side table on the porch, glasses stacked neatly on white linen, and homemade butter cookies neatly dominoed on a silver tray, a spoon next to a silver sugar bowl.

My grandfather was born in Ireland and had emigrated to the United States in the early nineteen hundreds. He was a retired New York City policeman, a captain with over twenty-one medals of commendation. But on his porch he never spoke of his job. There he was a poet and teacher, reciting Keats, Whitman, Thoreau, and Twain, sharing the art and rhyme of the classic poets and novelists he loved most. Hemingway had written

The Old Man and the Sea that memorable year; a first edition hardcover had been my grandfather's present to me. He read it aloud slowly, a chapter a night. I wanted Santiago, the old man, to fish forever so grandfather would read forever, rocking gently on his porch.

You can still see occasional porches on the American landscape. Ghetto areas have ancient derelict homes with front porches. Two-sider porches still overlook quiet midwestern streets. But even they are mostly empty now, relics of a bygone time.

Grandfather died in March of 1966, about the time that his porch and most porches in America started to disappear. If we assume that our artifacts symbolize conventions and habits, then the disappearance of my grandfather's porch may tell us more about ourselves than political double talk ever could. But what do you do to reverse people's withdrawal from each other into clusters of solitude? We don't put porches on new houses any longer because we have forgotten how to do those things for which the porch was a natural setting. We have misplaced the civilities and pleasures of random conversation. Spontaneous visiting, public courting, and shared silence are things of the past.

The front porch was our compromise between privacy and sociability. Half inside, half outside, the porch simultaneously embraced and offered conversations or invitations to our fellows. The porch was a part of the summer night that fell before the onslaught of electronics that would metamorphose the American evening.

We began to abandon the porch when television came into our lives. We went indoors to watch it. Air conditioning made indoor summer evenings tolerable. The front door was closed on the porch to keep the cool air in. That closed door literally ended the life that my grandfather had lived. We exchanged dialogue for electronic monologue. We became intimate with all the horrors, mutilations and murders presented on local and world news. The Fourth of July fireworks became a video image with a musical simulcast on our stereo monitors.

The flat fronts of houses we build nowadays symbolize how much we have changed. Once there was something outside the front door that held us and at the same time offered us. We don't think we need that

front porch any longer, but we are wrong. We desperately need its context. Lately, we have come to value what we lost. Awkwardly, like recently lobotomized invalids, we are trying to relearn sociability. Yet we are trying too hard to do what my grandfather's society once did naturally. We are pretending that communication is an art form.

I learned poetry and literature on a porch. I listened to my grandfather, Daniel P. Doris, and while sipping sugared lemonade and eating homemade butter cookies, I learned the meaning of tranquility.